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ANNOUNCEMENT

The articles in this issue of *The New Scholasticism* and those in the January and April issues of the coming year are studies prepared in tribute to the late and Very Reverend Doctor John McCormick, S. J. They were planned by their distinguished authors as a presentation to him on the occasion of his golden jubilee. His untimely death has made these contributions a memorial. War emergencies have made it advisable to publish them in *The New Scholasticism*. Later they will appear in a bound volume.

IGNATIUS SMITH, O. P.,
Editor.

THE
NEW SCHOLASTICISM
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Volume XVII OCTOBER, 1943 Number 4

Rev. JOHN F. McCORMICK, S. J.

In Memoriam

* * *

ON March 3, 1944, Father McCormick would have been seventy years old. In anticipation of that event, the American Catholic Philosophical Association had planned to do him deserved honor at its annual convention this coming Christmas in Chicago. A volume of essays, similar to that presented to him in 1939 by his former pupils,[1] was to be given him as a sign of the affection which the Association as a whole felt for him. But on July 14 of this year Father McCormick died very peacefully at Loyola University in Chicago. That the Association has thus lost a staunch friend and follower everyone will admit. What will not be appreciated so readily is that we have lost a great man. Those who knew him and loved him do not need to be told what sort of man he was; but those who, even when they did not know him, have had a genuine love of philosophical truth, may properly be reminded

[1] Gerard Smith, S. J. (ed.), *Jesuit Thinkers of the Renaissance.* Essays presented to John F. McCormick, S. J., by his former students on the occasion of the sixty-fifth anniversary of his birth. (Milwaukee: Marquette University Press, 1939.)

of what Father McCormick has contributed to the cause of philosophy in the United States.

The reminder is all the more necessary because, as it has well been said, Father McCormick did everything quietly. But anyone who has been following the development of Scholasticism in the United States during the last two decades may possibly have realized how much the influence of Father McCormick made itself felt. He fought a silent war with those for whom philosophy was somehow enclosed in formulas, in summaries, in textbooks and even in commentators. By his own example, rather than by any direct statement to this effect, he held to the ideal that philosophy exists only when men think it. It is not something to be found in books, even the most excellent books; it must be thought by men patiently, inquiringly, without family partisanships, and with the sole desire of reaching the truth.

This attitude dominated his teaching and his relations with his students. As a teacher, both in the classroom and in his writings, he sought to convey the living work itself of pursuing truth. He never wrote or taught merely for the edification of his colleagues. His students came to recognize in him a teacher who was willing to think with them in the work of disentangling philosophical problems. He gave them no false clarities and no simplifications. Above all, he imparted to them a sense of the mystery that awaited the human intellect in its exploration of reality. He did not cut reality to the measure of our knowledge, nor did he clarify the transcendence of God out of existence. An intelligible mystery is always better than a clear illusion.

Such ideals were bound to influence the teaching of philosophy wherever he was present, and they were bound to attract students to philosophy itself. If there is an interest today in Catholic schools in the teaching of the history of philosophy, the major credit must ultimately go to Father McCormick. He was not disposed to dismiss the philosophers of the past—

philosophers such as a Descartes, a Hume or a Kant—with a devastating syllogism. Nor did he think that the history of philosophy was some sort of plot against philosophical truth. His first attitude was to inquire, and if a man was proved wrong, why then, truth itself would correct him and defend others against him. He was therefore genuinely concerned to discover what the history of philosophy had to teach him about philosophical truth. He opened up for his students horizons which were no mere Cook's tour through history, for he knew, and he made his students realize, that it was philosophy itself which gave to the history of philosophy its enduring vitality and its fresh and living contemporaneity. He knew what St. Thomas meant when he said that we study what men have thought in order to discover the truth. And he knew, because he had long experienced it, what Gilson meant when he said that anything in the history of philosophy which can be traced back to non-philosophical causes was irrelevant to philosophy as such.

That Father McCormick's students, religious and laymen alike, loved him is here less important than the fact that his influence over many of them has proved decisive. There are many laymen teaching philosophy today who were first drawn to this work by the encouragement, the advice and the foresight of Father McCormick. Much of the graduate work in philosophy that is being done in not a few Catholic universities today owes its ideals and even some of its programs to Father McCormick. Nor am I forgetting a great teacher, Etienne Gilson, in saying this. Still less am I forgetting how much the influence of Gilson is a living reality in American Catholic philosophical thought today.

It is surely enough for one man that he should have, quietly and unobtrusively, contributed so much to Scholasticism in this country. He made it possible for Scholasticism to go back to its true sources, to recapture its own life, to undo its own

errors and to purify itself. This is a true philosophical revolution, but one which can easily be missed because it was accomplished so peacefully. That is why, whatever Scholasticism may accomplish in the future, it will do no more than live up to the vision of a great teacher.

And those who remember the man as much as they cherish his vision may surely be forgiven if they recall at this moment the concluding words of Plato's *Phaedo*: *Ἥδε ἡ τελευτή, ὦ Ἐχέκρατες, τοῦ ἑτέρου ἡμῖν ἐγένετο, ἀνδρὸς, ὡς ἡμεῖς φαῖμεν ἄν, τῶν τότε ὧν ἐπειράθημεν ἀρίστου καὶ ἄλλως φρονιμωτάτου καὶ δικαιοτάτου.*

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ARISTOTELIAN AND CARTESIAN MOTION

THE venerable philosopher whom this volume of essays is to felicitate is one whose competence and achievements make the contributor feel called upon for more than a routine performance. For that reason I have elected to discuss the perplexing problem of *motion.* It happens that Father McCormick, as moderator of a school paper, accepted my first offering for publication. Thus, in tendering him my congratulations on his success in the promotion of sound philosophy, I experience also a feeling of gratitude for his encouragement, and a hope that the present offering will show some advance over my early sophomoric effort.

By keeping close to the prime sources of the debate about motion, I shall endeavor, after Father McCormick's own example, to discover what has been solidly established and to use that to point the way out of the modern confusion. Some readers may at first be taken aback at my frequent references to Aristotle's *Physics.* But true philosophy is perennial. If the physical science and astronomy of Aristotle are "outmoded," we should reflect that in the same way our own will be outmoded in the centuries to come. Scientific men in all ages are aware that they have frequently been mistaken in assigning the immediate causes for given physical phenomena and that their list of such causes often needs revision. Furthermore, they discover that their accepted data are amenable to new formulations which are more convenient and more suggestive for future experiments. With that in mind, one who reads the Aristotelian *Physics,* and its finest commentary, that of St. Thomas, is amazed that this valuable key to the perennial philosophy of nature has been so woefully neglected.

I

In the whole of philosophical literature no single subject has given rise to more controversies than has the subject of motion. It is not alone that motion is difficult to define. Such intellectual giants as Aristotle and St. Thomas admit as much.[1] There is a psychological fixity, often engendered by the controversy itself, whereby, when a man has publicly defended his theory of motion, he becomes immobile. Newton was aware of this, and that is why he so studiously avoided controversy. It was in this connection that he first employed his famous dictum, "Hypotheses non fingo." But the force of that guiding principle is lost unless we put the emphasis on "*fingo.*"

In popular literature the ultimate degree of scorn is reserved for Aristotle's oft-repeated assertion that "Whatever is moved is moved by another." But even so simple a thing as ordinary syntax should have made the critics stay their vitriolic pens. The verb *move* is transitive. When it is used in the active voice it requires an object; as the oarsman moves the boat. When it is used in the passive voice it supposes an agent; as the boat is moved by the oarsman. Anything *moved* must be moved by another. It is true that we sometimes employ the verb in an intransitive sense (or middle voice), making it synonymous with "travel." That, too, has its application in the discussion of motion, as we shall see; and Aristotle was fully aware of it. But the misunderstanding on this point has, more than any thing else, occasioned the conviction that our modern explanation of motion is in flat contradiction to the ancient.

It is a common personal experience of us all that to put a body in motion or to deprive it of motion requires force. Bodies resist being given motion and resist being robbed of it. Also we recognize that there are media which offer resistance. But the resistance of the body itself is a fact only so long as

[1] Cf. St. Thomas, *Phys.* III, 3; *Metaph.* XI, 9.

the body is being accelerated; that is, so long as the motion is being speeded up, slowed down, or having its direction changed. The historic question has been: Suppose the body is *not* being accelerated, and there is *no* resistant medium; is a force then required for the body to continue in motion? Although these conditions are, to the best of our knowledge, nowhere realized in the whole universe, so that in fact the answer cannot be given on a basis of observation or experiment, nevertheless philosophers have essayed to give a definitive verdict. It is widely taken for granted today that the moderns contradict the ancients in their answer to this question. The fact is that they do not; the answer given by both is the same: the body will continue indefinitely with the same velocity and direction it had at the start. Let us, tracing the answer back through its history, take four outstanding examples.

Newton: Law I. Every body continues in its state of rest, or of uniform motion in a right line, unless it is compelled to change that state by forces impressed upon it.[2]

Descartes: If a portion of matter is at rest, it does not begin to set itself in motion; but once it is in motion, we have no reason to suppose that it will ever be compelled to cease moving, so long as it does not meet with anything that retards or stops its motion . . . Every moving body has a tendency to continue moving in a straight line.[3]

St. Thomas: If the motion be in a vacuum, one cannot assign any reason why the body in motion should stop anywhere . . . Therefore [in a vacuum] either every body is at rest and nothing in motion, or if anything be in motion, it must continue in motion forever (in infinitum) so long as it does not meet with a greater body to retard its imparted motion . . . Hence, since a vacuum offers no resistance, it will continue in motion forever in any direction.[4]

[2] *Philosophia Naturalis Principia Mathematica*, "Axioms, or Laws of Motion" (Motte's translation). In the original: Corpus omne perseverare in statu suo quiescendi vel movendi uniformiter in directum, nisi quatenus a viribus impressis cogitur statum suum mutare. To object, as has been done, to the use of "status" to indicate both rest and motion seems little more than to cavil about inaccuracies due to the inadequacy of language.

[3] *Principes*, II, 37, 39.

[4] *Phys.* IV, Lect. 11 ad fin.

Aristotle: No one could say why [in a vacuum], a thing once set in motion should stop anywhere: for why should it step *here* rather than *here*? So that thing will either be at rest or must be moved *ad infinitum*, unless something more powerful gets in its way.[5]

The doctrine of all these four is identical, and the very wording is so nearly so, that not only St. Thomas but Descartes and Newton would appear to have copied their statements directly from Aristotle.

The case which they suppose is of course a purely theoretical one, because a perfect vacuum is as unknown in the Newtonian universe as it was in the Aristotelian. For though the medium, or field, through which the planets travel is non-resistant to their motion, still there are gravitational, electric and magnetic forces at play there. Newton himself accepted the "aether." And if Aristotle poked fun at those who postulated a vacuum, Newton was more grim in his condemnation of them. "That one body," he says, "may act upon another at a distance through a vacuum, without the mediation of anything else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity, that I believe no man, who has in philosophical matters a competent faculty of thinking, can ever fall into it."[6] In the Copernican system the force of gravitation is continually accelerating the planets by making them describe orbits instead of following the tangent, and the planets repay the compliment by proportionally moving the sun itself. In this sense each is being moved, and being moved by another. The astronomers of Aristotle's day supplied him, it is true, with a somewhat different version of gravitation. For them, as also in the Copernican system, gravitation was exerted radially with respect to the central body, the earth, but there was gravitation upward as well as downward. Each of

[5] *Phys.* IV, 8, 215ª, 19. Oxford translation. It should be noted that as "stop" is understood in the intransitive sense, so too is "move."

[6] *Letter to Bentley*, Jan. 17, 1692-(3?). Cf. *Works of Richard Bentley*, Vol. 3, p. 210.

the four elements gravitated toward its own sphere according to its property of relative lightness or heaviness. Today we accept the fact that lighter bodies ascend only because they are forced upward by the heavier bodies taking the positions nearer the center. As Roger Cotes says in his Preface to the Second Edition of Newton's *Principia*: "That which is relative levity is not true levity, but apparent only, and arises from the preponderating gravity of contiguous bodies." For all that, gravitation is still as much a mystery to us as it was to the ancients.

But if acceleration and the overcoming of resistance are the only changes which, as all are agreed, require the concurrent operation of an active cause or force, why did the ancients demand the activity of an "intelligence" to account for the rotation of the outer sphere of the heavens? The answer is easy. According to the accepted astronomy, especially of Eudoxus and Calippus, the heavens were overcoming resistance, they were "doing work." Expounding Aristotle, St. Thomas says of the diurnal rotation of the heavens, that "Should this motion cease, all others would cease." Not alone the radiation of the heavens but their motion as well was required for all expenditure of energy in the sublunary world; the immediate agents of natural processes possess only such power as "terrestrial bodies have from the efficacy of the heavens, which . . . give the power of motion to other bodies."[7] In present-day astronomy the uniform progressive motion of the astronomical bodies is conditioned on their not doing, by their motion, any "work." On that condition Aristotle, too, would agree, as we have seen, that they need not be "pushed."

For the ancients and the moderns there is unanimity of agreement on the principle that a continuously and concurrently operating cause is required only while acceleration is being effected or resistance being overcome. While a change is being

[7] *Phys.* III, 1; IV, 8 ad fin. Cf. *New Scholasticism*, XVI, 3, "Aristotle on Motion."

produced, there must be some agent producing it. But the principle does not mean (aside from the conservative power of God) that the agent must continue acting *after* the change has been effected, continue producing after the production has ceased. This is clearly seen by considering the opposite operation. When a body is in motion, a force is needed to bring the body to rest, to "accelerate" it to a stop; but the force does not continue to act, so as to *keep* the body in the condition of rest. Hence when a force has generated motion, it may cease acting and is not needed to keep the body at the velocity it then has. If, after the withdrawal of the force, the body begins to suffer a diminution of velocity, such diminution is being effected by a counter force, as gravitation or the resistance of the medium. It is only in the ideal case of uniform rectilinear motion in an absolute vacuum that there is no need of a continually acting force, or "mover."

II

At this point we are faced with the relativity of motion. Not a few savants are persuaded that Newton has been superseded by Einstein. But I think that a dispassionate consideration of the case will reveal that Einstein has not superseded, or at least not replaced Newton—no more than Newton replaced Aristotle. Science does not progress by one system completely ousting all previously well-reasoned systems. When new data come in (or even without that) science progresses by reformulating its axioms or laws so as to take in the new data (if any) or to simplify its statements and thus give them a wider application. Thus the Einstein system is primarily a device for determining not the fact of motion merely but the *velocity* of bodies; and this is done by taking the velocity of light "in vacuo" as the standard velocity. But since the velocity of light (as also of sound) is independent of the velocity of the emitting

source, there must be a medium to account for that constant velocity. Hence the "vacuum" is not truly such but really a *medium*; though the medium is not (so far as we know) resistant to the electro-magnetic disturbance. In that system all motion is thus referred ultimately to that medium; and since the medium is an objectively real and extended something, it must be denominated body. As far back as Aristotle motion has been reckoned in this way, by reference to the medium. I shall quote St. Thomas's Commentary: "Since the space is a quantity as well as the mobile; then, given both quantities, it makes no difference which of them is in motion, which at rest. As the mobile passes the space, so the space passes the mobile."[8] Even the relativity of velocity is considered in connection with Zeno's difficulty about the train (of four bodies) at rest and the two other trains passing it in opposite directions.[9] I am not, of course, pretending that Aristotle knew anything about the velocity of light, but relative velocities are too much an intimate part of physics to have been overlooked. Einstein by using the known velocity of light seems to have stumbled on a new physical fact—that the mass of a molar body is increased in proportion to its velocity. This fact is used to explain the progression of the perihelion of Mercury. But, granted that the mass *is* increased, Mercury still follows the Newtonian law. It is in this way that science makes new advances from previous advances, not by "junking" all the former achievements.

There is another Relativity, that of Ritz. It reckons the velocity of one body with reference only to a second body, not to any medium as a "tertium quid."[10] This is a more genuine relativity, but it is perhaps not very suggestive of new physical theories. The Einstein relativity has suggested that the inertia of a body may be due, not to the body itself, but to its "field."

[8] *Phys.* VI, 9.
[9] *Phys.* VI, 11.
[10] Cf. *Electromagnetics*, by A. O'Rahilly, p. 669.

This does not dispel the mystery of inertia, it only shifts the locale of the mystery. Though its habitat is changed, inertia is still the phenomenon of resistance to acceleration, and force must be employed to overcome it. A body's motion (as its rest also) is still *conserved* by inertia, but its motion (or rest) cannot be *changed* unless something else effects the change. So we come back to the principle that whatever is made to change is made to change by something else. In fact the principle is self-evident. The changer and the changed cannot be identical.

This is hardly the place to discuss St. Thomas's statement that "Motion is not *per se* in the category Relation, but only *per accidens,* inasmuch namely as a new relation is consequent on any change." The reason for this is that when a thing is being changed, or "moved" (in the sense explained), that thing itself is having its potency actuated and is therefore the *subject* of the change. But for a relation to change, it is not necessary that the subject change; it is sufficient that the term change. Hence, when a body is made to change its size, its quality or place, other things acquire a new relation to it without themselves being *moved.*[11] Suppose the unique case—a favorite with Relativists—of only two bodies, but without any medium; because a medium, whether resistant or not, is another body, and another system of reference. If the distance between the two bodies is, e. g., diminishing at a uniform rate, it makes no difference which one, as St. Thomas says, is denominated as in motion. But if the speed increases as the distance diminishes, this cannot happen without the application of a force; and we cannot say which one is being accelerated until we know where the force is being applied. Though the relation is evident we cannot determine the subject of the *motus.* But this case is so supposititious that it is almost idle to discuss it.

[11] *Phys.* III, 1, n. 6; V, 3, n. 7. Leonine Edition.

III

Before turning to Descartes it is necessary to remark that *motus* for the Aristotelians is not confined to local motion; it includes expansion and contraction, as also the continuous change of qualities or "dispositions." The extreme case of expansion and contraction was had where it occurred without the addition or subtraction of matter and where the body was perfectly continuous, i. e., without pores, in both the large and small size; this was supposed to occur when water was converted into steam, and steam condensed into water. There was augmentation also in the growth of an organism but that was by addition of matter from outside, and by its transformation into living tissue. "Dispositions" were subject to continuous change in preparing the matter for such transformation, as also for chemical changes in the inorganic realm. These processes are motus, the continuous acquiring or losing something by a given subject; and as motus lasts only while the process is going on, an agent is indeed required, but required only so long as the acquisition or privation is being effected.

Motion, for Aristotle, is not a *first* something, as Heraclitus had averred. Motion presupposes: (a) an already existing body; (b) a passive potency in the body to gain something it does not yet have, or lose something that it has. Nor is motion the possession as such, or the lack as such; it is the *process* of acquiring or of losing. Motion is the actualization of an existing thing's potency, precisely while it is being actualized.[12] The body is the subject of motion only while it is getting or losing something. But it must not be thought that the losing is a purely negative process, because to deprive a body of its motion is to produce rest.[13] And, since motion when *ended* is no longer motion, it follows that motion is of its very nature

[12] *Phys.* III, 1, 201ª, 10.
[13] St. Thomas, *Phys.* V, 9 and 10; III, 2.

unended, incomplete actuation. This essential unterminatedness of motion reveals its extreme materiality. Only material things are capable of this continuous, this infinitesimally gradual change which is motion proper.

It is not strange, then, that Materialistically minded philosophers, recognizing this intimate association of matter and motion, yet wishing to have something more enduring than this continuous fluidity, misrepresent the true nature of motion; they atomize it, so as to let each "part" endure for a time; they represent motion as delivered in discrete, all-at-once sections.

IV

Poor Descartes is blamed for giving comfort to so many philosophical heresies that one is loath to harp on the subject once more. On the question of motion in a vacuum I have cited him above as in step with the great masters of motion. But by his invention of analytic geometry, whereby the continuously changing direction of a curve is analyzed into a series of separate points, Descartes unwittingly lent a seeming mathematical support to the atomization of motion. In fact, he himself appears to have been taken captive by his own invention. Consider only this, that strictly continuous motion is the most striking evidence of the operation of efficient cause in the world about us. Continuous change is the very becomingness of becoming. It is the very process of production. Natural agents are the evident and immediately acting causes producing such change. Deny such change, and efficient cause at once becomes remote from the world. Descartes was content to let it be so remote as to belong to God alone. But if you banish efficient cause from the world, behold the consequence:

> The actual condition of such a world [as Gilson says], in any given moment, would then require no other explanation than the creative and preserving power of God who would make it to be so; what such a

world is now does not follow from what is was in the instant immediately preceding, nor is it a cause of what it will be in the next one. In short, the existence of such a world is not a continuous duration of permanent substances, but a succession of disconnected and instantaneous existences, each of which has no other cause than the creative power of God. (*Unity of Philosophical Experience*, p. 206.)

In line with this, Hume, by denying permanent subjects enduring through change, had to make change itself a succession of fixed states, lest the prior and later should fuse somewhat, and thus supply an endurance of something from one to the other. In order that there could be an antecedent distinct from the consequent, he had to make the world a series of discrete states, each of which was static. He indeed put the continuity in the mind, but as he conceded no endurance to the mind either, it, too, became as atomized as the world. No man (or no mind) in such a world ever lasts through two moments, but a new man is created in each moment, and endowed with an illusion of a past which he never experienced, together with an expectation of a future moment which he shall never see. So recent a philosopher as A. N. Whitehead presents the same concept of the world—though with an elaborate mathematical apparatus undreamed of by Hume.[14] The world of Hume and Whitehead is like that on the cinema screen, where there is really only a series of "stills," which however give the illusion of motion—only that there is no permanent screen, and new spectators succeed the old as rapidly as the pictures. It is the fate of Hume, the arch skeptic of both mind and God, that he has to postulate an enduring mind and a creating God more emphatically than the philosophers he lampoons. A like fate dogs those who would

[14] For example: "Duration is a slab of time with temporal thickness," *Principle of Relativity*, p. 7; "Duration is an arrest. Endurance is the repetition of a pattern in successive events. Time is atomic," *Science and the Modern World*, pp. 183, 185. That the continuity is contributed by the mind is the constantly recurring theme of Whitehead's writings. Cf., e. g., *Principles of Natural Knowledge*, p. 75.

accept *only* motion and becoming; they can't have either; they can have only separate creations and discrete succession, neither of which is motion or "becoming." Hence, to accept motion as a continuously changing condition *of* something is the only way to preserve philosophical sanity.

Though the Humian method of representing reality is a convenient one for science, which must define the antecedent condition as distinct from the consequent, it is difficult to believe that anyone could be so literal as to identify the method with the reality. Yet so great a mind as Bergson's revolted from this "useful" method because so many were identifying the method with the reality to which it is applied. He argued that to chop motion into sections is to "kill" it. But surely one can use the method without mistaking it for the motion. Bergson was eminently right not only in insisting that motion must be continuous but that motion is always occurring somewhere in the universe. However, to maintain that each of us is *always* aware of a continuous "flow" is overstating the case. The veridical report of consciousness is rather this: (a) we have the conviction that there is always something in motion; (b) when we advert to this conviction we are forcibly impressed with the fact that motion was going on even while we were *not* concurrently aware of it. But Bergson, at least during his most productive years, made immediate and present awareness his forte. To him, for a thing to be most real it had to be being-right-now-experienced, and experienced as a flow. That most real thing was *durée*. Nor did he go beneath the *durée* to discover its subject. He made *durée* itself the subject. But, unfortunately, that is to stop short of the complete audit of experience. *Durée* cannot be the ultimate subject; it *needs* a subject. Motion is such a thing that if you would make it the subject you must make it discrete, to keep it at all you must "kill" it; or, if you make it continuous, it cannot be the subject. If it is the subject, it is not motion; if it is motion, it is not the subject.

V

Aristotelians definitely reject the Cartesian notion of bodily substance as simon pure extension, which has only the potency to be cut into pieces and moved around. They also reject the Lockean mal-conception of substance as a stage on which accidents make their entrances and exits. This twofold rejection brings up the moot question: How *do* Aristotelians conceive substance to be involved in accidental changes, particularly in qualitative changes? Does the substance change, or do the accidents alone change? It is not my intention to go into this question here. It will be sufficient to note a few salient points of the doctrine. 1. Although created substance is capable of undergoing change, it does not need to be always changing. Change is not of the essence of substance, nor a *sine qua non* of its existence. 2. "Substantial change" (which occurs in bodies only, not in spirits) is a change from one species to another species of substance. The classical case for Aristotle was the transmutation of one element into another element. The subject of this change is prime matter;[15] and it is differently actuated by the outgoing and the incoming form. The different species of substance are the result of these different actuations. 3. A substance while remaining specifically the same can undergo accidental changes. Yet the complete substance, the "ens," is differently actuated by each new accident; its potencies are brought to actuation. If the accident is a *motus*, e. g., a continuously changing "disposition," the very substance's own potency is being continually actuated. Motus is

[15] Prime matter was called "non ens" because only a complete substance was denominated simply an "ens." Thus St. Thomas: "That generation which is from non ens simply to ens, which is a substance, is generation simply. It is by this generation that we designate whether a thing 'becomes' simply, or not. The subject of the substantial form is not an ens actually but only potentially; it is prime matter, which at the beginning of generation is under privation, but at the end is under substantial form." (*Phys.* V, 2.)

the continuous actualization of an existent's, i. e., a substance's, potency.

Continuously changing qualities are as much a phenomenon for physical science as is local motion. And they can be measured. But it must be remembered that measure is primarily derived from extension, and when it is applied to other phenomena it is not applied univocally but analogously. Descartes fostered the thought that all bodily phenomena could be reduced to extension and its concomitant, local motion. It was thus he sought to bring the whole of physics under mathematics. That can be done, as we have ample proof today, but it is likely to lead to a misconception of reality. Your modern mathematical physicist, when asked a question about the material world, does not picture to himself a "mechanical model," not anything of which he could draw a picture. He recalls a mathematical formula or an equation, and tells you what conditions are required by the mathematical statement of the laws. This method is very fruitful of suggestions for experiments and is a convenient way of storing up established facts, but if taken as the sum of all we can know about the world it leads to atomic Materialism. The "equal sign" tempts us to think that all we know is equality of quantity. But that is self deception. "It is to be noted," says St. Thomas, "that many things in the abstract consideration of logic or mathematics are univocal, which in the concrete application of the physicist are somewhat equivocal [i. e., analogous]; because they are not applicable in the same sense to every subject-matter."[16]

From any share in this impoverishing of reality I wish to exculpate Newton. Like Aristotle, Newton was guided by observation, not by predilection for pet hypotheses. He did not misrepresent motion; he accepted it as continuous change. In order to subject it to mathematical handling, he was con-

[16] *Phys.* VII, 7.

strained to discover a mathematics that would handle it without "killing" it. That mathematics is the calculus.

VI

Spiritual things are incapable of *continuous* change. Such change is most material—even more so than extension. Thus the right understanding of motion is the best corrective of that spurious philosophy of matter that goes by the name of Materialism. Materialism has always resorted to atoms. It atomizes not only extension but motion and time as well. Extension is atomized by nature, and it is arbitrarily atomized by univocal measurement. But the measurement of motion must not suppose the motion to be atomized; we do not have to suppose that the motion stops where the measure stops, or that the motion does not flow on because the measure cannot. The mind can recognize the measure as different from the measured. In like manner the mind can know matter without becoming matter, know atoms without becoming atoms, know motion without becoming motion. It is only because the mind does *not* change *pari passu* with the changing object that it can know the object as changing, that it can know motion. To make everything motion is to have no motion. To rob matter of its capacity for truly continuous motion is to rob it of its most material characteristic. The only way to save mind and matter is to save true *motus*.

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BEING AND PRINCIPLES OF BEING

EVERY student of metaphysics is in constant quest for a more unified vision of things. This quest, so universal and so spontaneous, testifies to a native impulse of the human intelligence. It has its dangers of course. The wrecks of Monism that strew the road of metaphysics are grim evidence of the care needed in pursuing one's goal. Yet the desire for unity in knowledge will not be stifled. The intellect is measured by being, its object; and what is true of its object—that *ens et unum convertuntur*—is true, with the necessary qualifications, of the possession of that object. The greater the unity, the greater the being; the greater the unity of knowledge, the more perfect the knowledge.

In Thomistic metaphysics, this or that principle has been seized upon for its virtualities in explaining and unifying the data and doctrines of the science. One will point to the concept of being itself as the central factor. Another scholar will express his preference for the doctrine of potency and act. A third will emphasize the real distinction of essence and existence in creatures as the fundamental truth. Who is more correct? I am not disposed to quarrel about such matters. In a sense, all are justified. Whether you pivot the vision about being, or potency and act, or essence and existence, you can expound the Thomistic synthesis faithfully and profoundly. What I am concerned about is the reality and inevitability of that quest for unity. This particular essay is inspired by that quest.

All I am attempting here is to develop one aspect—though I believe, an important one—of the Thomistic synthesis along lines that have fascinated me for some time. It is not my ambition or intention to offer anything radically new. But old truths,

mulled over, can present new faces and manifest interconnections that may have escaped one's earlier attention.

Much of the difficulty—and misunderstanding—involved in grasping the essentials of Thomism arises from the confusion of being with principles of being. It is easy enough to show how modern philosophers from Descartes on have misconstrued the doctrine for this reason. Even those within the Scholastic tradition have fallen into the same confusion. The fault, to be sure, does not wholly rest with these thinkers. Thomists themselves have been guilty at times of lack of precision. It is perfectly natural to fall into the vice of what the French nicely term "chosisme." It requires a steady and intensive effort to perceive that certain realities fall away from the full notion of being, realities which are most aptly called principles of being rather than beings themselves.

Why principles? Simply because from their union surges forth a being, because there are beings which are composed, and which, despite their composition, are strictly one. A house as such is not made up of little houses, the familiar saying goes. Neither is a composed being constituted of beings. But the objection immediately arises: these principles either exist or they do not. If they exist, they are being *tout court*; if they do not exist, they cannot be the components of real being. I remember one philosopher who believed he had once and for all disposed of hylomorphism by arguing that matter and form were two zeros equaling one.

But the point is that a principle of being has reality and significance only in union with its co-principle. Isolate it—if you could—from the latter, and it ceases to be and to be thought of. By itself it is nothing. That much can be admitted to the adversary. But there is precisely the root of his difficulty. A principle of being is not something that first exists in its own right, and to which is then added a relation to another principle. *Its whole reality consists in this relation.* There are realities

which have by themselves a subsistent character, but there are other realities essentially relative, in the depths of whose very nature there is a demand for union with another. Principles of being are transcendental relations. If there is difficulty in grasping them, it is because the intellect must penetrate, in a manner, beneath its proper object—which is being—and unearth the conditions which make finite being intrinsically intelligible. The intellect, moreover, can easily be led astray by the imagination, and what can the imagination make of principles of being?

Such realities as principles must be postulated, or else finite being is a contradiction in terms. The Thomistic argument is well known: act does not limit itself, but is limited by a potency really distinct from the act. Finite being is necessarily composed. Act denotes perfection: limitation is imperfection. The concept of the one is adequately distinguished from the concept of the other. We conclude that they do not and cannot correspond to one and the same reality. The wisdom of Socrates is limited, but it is not limited because he is wise. The formal reason of a perfection cannot be the formal reason for the limitation of that perfection.[1]

This contention has been subject to sharp attack during recent years.[2] It is retorted that the perfection of which we speak as prescinding from imperfection either is positively infinite or else a mere abstraction. In the former case, the perfection excludes altogether limitation, and can never be found united to a limiting principle; or, if the latter horn of the dilemma is preferred, a mere abstraction avails nothing in explaining the necessary conditions of the real order.

Thomists have answered that they are not confusing the mode of conceiving a thing with the thing conceived. When I think

[1] For a fuller development of this point, *Vd.* McMahon, "Thomistic Metaphysics: A Systematic Explanation of the Real," *The New Scholasticism*, July, 1934, pp. 240-260.

[2] From Descoqs, Fuetscher, Monaco, and others.

of "wisdom," for example, I am concerned with an object that has been abstracted from particular instances, much as any universal is abstracted from its inferiors.[2b] But this does not make the perfection of "wisdom" a mere abstraction. I am simply brought by means of or thru the process of abstraction to the notion of "wisdom" in itself, or in its nature absolutely, its nature, that is, independently from any existence it may have either inside or outside of the intellect.

But is such an object infinite in a positive sense? That was the other horn of the dilemma. We answer: it neither includes nor excludes limitation. Hence it is negatively infinite. Discover an actually existing thing which corresponds to it in its fullness and purity, and that thing will be positively infinite. But a limited realization of it is a certain sign that the perfection in question has been received into a really distinct potency.[3]

One last point in this general consideration of principles of being emerges: the principles are related to each other as potency to act. No other relation is conceivable in this metaphysical composition. Two acts, as such, could never unite to form one being *per se*, for actuality as such brings the thing into the fullness of being. Genuine unity can only be had if the one principle is a potency and the other its correlative act.

Realities, not beings, existing and conceivable only in relation to one another, potential and actual components of a finite being—such are the principles of being. And in three orders they are present: the order of essence, the order of existence, and the order of operation. This brings us to the heart of our subject.

[2b] But derived by formal, not by total abstraction.

[3] I think that Gredt has said the last word on this subject in his paper, "Doctrina Thomistica de Potentia et Actu," *Acta Pont. Academiae Romanae S. Thomae Aq. et Religionis Catholicae*, Anno, 1934, pp. 34-45.

The Order of Essence

The masters unequivocally expressed themselves on the character of prime matter and substantial form. They are principles of being, and in no sense beings. Thus St. Thomas:

> Just as the substantial form does not have an absolute existence of itself without its subject so neither does its subject, namely, matter. And therefore from the joining of both there results that existence in which the thing subsists in itself, and from these is produced a substantial unit and from their union a certain essence results.[4]

It follows that the properties of the composite material substance are to be attributed strictly to the whole, and not to its parts. Nys' objection to the argument from the activity and passivity (an argument often adduced to prove hylomorphism) seems to have rested upon a confusion here. Why, he asked, is it impossible for the same thing to be active and passive? Why must a being which is active and passive necessarily be composed?[5] Of course it is the same being which has these contrary properties. The form strictly is not active, nor is the matter positive. It is the complete being which is both, but the principle *by which* it is one must be distinct from the principle *by which* it is the other. It is the man who thinks, and not merely the soul.

Every aspect of the traditional doctrine of hylomorphism reinforces the soundness of this view. I do not intend, however, to retrace familiar ground. But I should like to consider one phase of the doctrine, a phase which constitutes an interesting chapter in the story of Aristotelian commentaries. It is the question of the origin of material forms. It is a most enlightening topic for our problem.

One will recall the dilemma of Parmenides: what comes-to-be would have to come from being or nothing: but from

[4] *De Ente et Essentiae* (Riedl trans., pp. 43-44).

[5] *A Manual of Modern Scholastic Philosophy*, London (1928), Vol. I, p. 123.

nothing nothing comes-to-be; and from being nothing comes-to-be, because being already exists. Therefore being is one and immobile. Aristotle's distinction between potency and act resolved the dilemma. Intrinsic change, both of the substantial order and of the accidental order, was possible, when once the distinction between potency and act is recognized.

But what comes into being as a consequence of change? It is easy to make a fatal slip here. Aristotle was careful to say that it is the composite which is generated in substantial change, and not, strictly speaking, the form. The same as regards accidental change. And why not the form? Because it is the essence of a thing which is generated (or corrupted) to be composed, and to make the form the *per se* term of generation is to become involved in an infinite regress:

> Everything that changes is something and is changed by something and into something. That by which it is changed is the immediate mover; that which is changed, the matter; that into which it is changed, the form. The process, then, will go on to infinity, if not only the bronze comes to be round but also the round or the bronze comes-to-be; therefore there must be a stop.[6]

Only in an incidental fashion can forms be said to come-to-be. Aristotle summed up his thought in a formula that was to puzzle most commentators and historians for centuries: "Some things are and are not, without coming-to-be and ceasing-to-be., e. g., points, if they can be said to be, *and in general forms.*"[7]

What did he mean? Was it his thought that forms did not come-to-be in a period of time, but instantaneously appeared? Astonishing as this interpretation may seem on reflection, it was precisely how the predecessors of Aquinas understood the passage. Thus Alexander Aphrodisiensis, Syrianus, Asclepius, Philoponus, and Simplicius.[8] Such an interpretation, of course,

[6] *Metaphysics,* 1069b 35-1070a4. St. Thomas' commentary is exact and clear: *In Metaphysica,* Book XII, l. 3, Cathala: no. 2442.

[7] *Metaphysics,* VIII, 5, 1044b 21-23. My italics.

[8] P. Hoenen, *De Origine Formae Materialis,* Rome (1932), pp. 29-40. The original texts may be found in this interesting monograph.

assumed that the form came-to-be strictly, and the difficulties of infinite regress appear once more. The commentators on this point were misconstruing the genuine thought of Aristotle.

St. Thomas, however, understood the cryptic formula of the Stagirite. Aristotle was distinguishing between generation *per se* (proper to the composite) and generation *per accidens* (proper to forms):

> Dicit ergo primo, quod quaedam quandoque sunt et quandoque non sunt "sine generatione et corruptione," id est sine hoc quod ipse per se generentur et corrumpantur; sicut puncta, et universaliter omnes species et formae, sive sint substantiales sive accidentales. Non enim albus per se loquendo fit, sed lignum album.[9]

What the previous commentators had apparently not grasped, and what Aquinas once and for all made explicit and clear, was that the form was not a being, but a principle of being. Hence, it could not come-to-*be*:

> Et hoc ideo est, quia formae non proprie habent esse, sed magis sunt quibus aliqua habent esse. Unde si fieri est via in esse, illa tantum per se fiunt, quae per formas habent esse. Formae autem incipiunt esse, eo modo quo sunt in illis factis, quae per formas esse habent.[10]

But modern philosophers ignored or misunderstood the explanation of Aquinas. The rejection of the peripatetic philosophy to no small degree was owing to the inability to comprehend the notion of principle of being. This is certainly true of Descartes. It was not so much the question of prime matter that troubled them as it was the question of the origin of material forms. Descartes persisted in viewing both substantial and accidental forms as complete beings. But if they are beings, they come-to-be strictly. Since they could not come-to-be from the matter (matter is not a part of the form), they must be created. Creation, nevertheless, is beyond the powers of nature. There was nothing to do save reject the doctrine of forms.

[9] *In Metaphysica*, Book VIII, lect. 4. Cathala: no. 1746.
[10] *Ibid.*, Book VII, lect. 7. Cathala: no. 1419.

Descartes was logical, once granting his assumption that forms are beings:

> . . . plane repugnat ut substantia aliqua de novo existat, nisi de novo a Deo creetur; vidimus autem quotidie multas ex illis formis, quae substantiales dicuntur, de novo incipere esse, quamvis a Deo creari non putentur ab iis, qui putant ipsas esse substantias.[11]

The Cartesians, in general, made the same error. Substantial forms are beings, and their emergence by natural agencies is impossible. The *Logique ou l'art de penser* by Arnauld and Nicole makes the point explicitly: "S'il y avait des formes substantielles, la Nature pourrait produire des substances qui ne seraient pas auparavant; or la Nature ne pourrait produire de nouvelles substances, puisque ce serait une espèce de création; et partant, il n'y a point de formes substantielles."[12]

The Scholastics, it is true, had said that the form was educed from the potency of the matter. But this by no means meant that forms, strictly, came-to-be. On the contrary, by "eduction" they were designating precisely a mode of *incidental* emergence proper to realities which were not beings and which therefore did not strictly come-to-be.

Eduction is opposed to introduction. The human soul is not educed, but is a being (incomplete in *ratione speciei*) which is created and introduced into matter. In contrast, material forms arise incidentally upon the emergence of the composite. Hoenen has expressed the point with the greatest possible precision: formam educi e potentia materiae est: compositum fieri ex materia praeiacente, quae nunc de novo per hanc formam informatur, quin forma fiat et introducatur ab extrinseco.[13]

It is astonishing enough that the Greek commentators of Aristotle should have failed to distinguish between beings and

[11] *Oeuvres A. et T.*, t. III, pp. 505, 12-16. Apud Hoenen, *Cosmologia*, Rome (1936), p. 484.

[12] P. III, chap. 19, 2. Apud Hoenen, *ibid.*, p. 484.

[13] Hoenen, *ibid.*, p. 287.

principles. But it is even more astonishing that Descartes and his successors should have made precisely the same error, in view of the fact that Aquinas had made all necessary clarifications upon this abstruse point. Aquinas — one would almost think — had under his eyes the texts of the moderns when he penned the following lines:

> Multis error accidit circa formas ex hoc quod de eis judicant sicut de substantiis judicatur; quod quidem ex hoc contingere videtur, quod formae per modum substantiarum signantur in abstracto ut albedo vel virtus vel aliquid huiusmodi; unde aliqui modum loquendi sequentes sic de eis judicant ac si essent substantiae . . . Aestimaverunt enim quod formis competeret fieri sicut competit substantiis; et ideo non venientes ex quo formae generentur posuerunt eas creari vel praeexsistere in materia; non attendentes quod sicut esse non est formae sed subjecti per formam, ita nec fieri, quod terminantur ad esse, est formae sed subjecti.[14]

The Order of Existence

There was a time when serious and earnest scholars like Father Thomas Harper could write persuasively against the view that St. Thomas taught the real distinction of essence and existence in finite beings. But Thomistic study has progressed since the period of Harper's study, and there are relatively few today who would attempt to defend his point of view.[15] The writings themselves of Aquinas have been subjected to closer scrutiny, and research, chiefly by Grabmann, in the philosophy of Aquinas' contemporaries — whose testimony as to what Aquinas taught is of obviously great importance — has now apparently resolved once and for all the question. Siger de Brabant, for example, assumed that the Angelic Doctor upheld the real distinction, and he was not alone:

> St. Thomas Aquinas taught the real distinction between essence and existence in created beings. This is the view of the philosophers of the

[14] *Q. D. De Virt. in comm.*, a. 11, c.

[15] But there are a few. Vide: L. De Raemaeker, *Metaphysica Generalis*, t. II, p. 331. Louvain, 1935 (for bibliography).

faculty of arts and of the Averroists in the 13th century and in the beginning of the 14th. If those philosophers—nearly all of whom opposed the real distinction—had thought otherwise, there is no doubt they would have adduced St. Thomas in their behalf against the real distinction, so great was his authority at the University of Paris.[16]

But in what sense did Aquinas understand the real distinction? In the sense of a distinction between two beings or two principles of being? Giles of Rome allegedly conceived the distinction in the former sense.[17] Essence and existence were distinct, according to Giles, as thing from thing—an excess which was to provoke strong opposition and which was to lead to a serious misunderstanding. In refuting Giles, one often believed that the authentic Thomistic position was being refuted.

What is that position? As I conceive it, Thomists hold that neither the essence nor the existence of a finite thing are beings in the strict sense. This finite being, which I apprehend, at once exists and is limited. It is therefore composed, in accordance with the principle of limitation of act, of two realities, the act of existence and the limiting potential principle of essence. It would be wrong to say that the existence exists, and equally wrong to say that the essence is limited. Rather, it is the finite being which is both. That *by which* this finite being exists is the principle of existence; and that *by which* that same being is limited is the principle of essence. Or, if you will, the essence and the existence composing the being both exist and are both

[16] Martin Grabmann: *Acta Pont. Academiae Romae* (1934), p. 76. Cf. *Acta primi Congressus thomistici*, Romae (1925), p. 262: "Primo putavi probabilius Thomam non docuisse distinctionem realem propter dissensum inter discipulos. Postea autem perveni ad persuasionem quod vere ipsam tenuit, considerando praesertim doctrinam primorum S. Thomae discipulorum. Hoc jam exposui tempore Hebdomadae thomisticae, et hodie idem confirmo: historice constat S. Thomam docuisse distinctionem realem.

[17] E. Hocedez, S. J., *Aegidii Romani Theoremata*, p. 63: "Gilles de Rome, croyons-nous, fut une des premières victimes de l'imagination. Il est certain qu'il a pensé la distinction réelle entre l'essence et l existence, sur le mode de la séparabilité."

limited. The existence, however, is limited not *ratione sui*, but *ratione essentiae*; and the essence exists, not *ratione sui*, but *ratione existentiae*. Each principle communicates its respective characters to the other, but they are real principles *only* in so far as they make this communication.

This position involves a certain logical conclusion not brought out, or at least not clearly brought out, in many works. I mean that it is not sufficient to establish that in the actual order such a composition prevails. If it is true that the principles of being cannot actually *be* without their mutual communication, it is also true that they cannot be *thought of* save in a like connection. When Monaco argued that the Thomists made no provision for the reality of existence in the order of possibles—he reasoned that if existence were really distinct from the essence, in the possible order one should find a possible existence as well as a possible essence—his argument had weight against those who had not fully thought out their conclusions.[18] But it has no weight against those who affirm that the concept of finite being as a possible is a concept of a possible essence and a possible existence, a composition in the logical order corresponding to the composition in the extramental order of the actual existence and the actualized essence.

I know of no one who has made this point more clearly and more explicitly than Dr. Balthazar of Louvain: "C'est *pour* être fini que l'être doit être composé métaphysiquement, et non *parce que* déjà il est fini . . . L'être fini est identique à l'essence finie, oui, en ce sens que l'être fini est déjà composée d'essence et d'être; *duo ut quo* et que l'essence finie même comme possible est déjà composée d'etre fini et d'essence: *duo ut quo*.[19]

That indefatigable opponent of Thomism, Father Descoqs, professes to find in Balthazar's view something hitherto unheard of in the Thomistic school. We must grant to Descoqs that it

[18] N. Monaco, S. J., *Metaphysica Generalis*, Rome (1928), p. 175.
[19] N. Balthasar, *Revue néo-scolastique de Philosophie* (1930), p. 361.

is a view not rendered with any explicitness in St. Thomas, Cajetan, or John of St. Thomas. I have never seen any passages wherein these three masters speak of a composition of essence and existence in the possible order.[20] Nevertheless, it is the only view consistent, I believe, with their own principles. *Either* essence and existence are principles of being, and they are as inseparable in the intentional order as they are in the extra-mental order; *or*, essence is conceived in the possible order in complete isolation from existence (and then as a *thing*), only to undergo a remarkable and in the last analysis unintelligible transformation into a *principle* in the order of actual existence.

"Duo ut quo" says the Louvain metaphysician. It is hardly the expression of St. Thomas. He employs it to designate matter and form, yes. But generally essence and existence are denoted by *quod* and *quo*, respectively.[21] How explain the terminology? I think that Capreolous and Billot have explained it satisfactorily. The subsisting thing, that is, the *quod*, may be signified either in a formal or a denominative sense. Formally taken, it signifies the composite of essence and existence. In a denominative sense, it signifies only the individual substance, connoting nevertheless the existence proper to it, as a subject having a perfection can be justly denominated from that perfection.[22]

In the light of this analysis, which I believe to be authentically Thomistic, it is easy to see how some of the difficulties against the real distinction fall wide of the mark. Soto could propose in all seriousness that if the two were really distinct

[20] Yet Gredt explicitly says: "De essentia possibili praedicatur exsistentia possibilis" in his *Elementa Philosophiae*, 5th edition, p. 106. For Descoqs, see his *Praelectiones Theologiae Naturalis*, t. II, p. 694.

[21] II *C. Gent.* cap. 54; I *Summa Theol.*, q. 75, a. 5 ad 4.

[22] L. Billot, S. J., *De Verbo Incarnato*, Rome (1927), p. 69. Those Thomists who maintain that *esse proprium substantiae* is not the formal constitutive of subsistence will explain the matter otherwise: *Quod* refers to the individual substance with its substantial mode, by which the nature is rendered apt to receive existence as its very own.

then "God could corrupt my existence, preserving myself." Suarez spoke in the same vein when he argued that "if God might conserve the actual essence without the further act of a distinct existence, the entity so conserved truly exists. Consequently, whatever is imagined to be added to it cannot have the genuine character of existence, and without reason is said to be naturally necessary for the formal effect of existence."[23] Chosisme!

One cannot leave this subject without some allusion to the paramount significance of the real distinction. This point, however often it has been stressed in the past by Del Prado and others, again requires attention because of Dr. Adler's provocative article on the proofs for God's existence.[24] Adler asks whether the lack of the composition of essence and existence self-evidently or demonstrably means that all other types of composition are lacking (potency and act, matter and form, substance and accident). I commend to Dr. Adler the following words of Cardinal Billot:

> Compositio ex essentia et actu essendi remota nulla alia amplius remanet compositio excogitabilis. Nam de iis compositionibus nunc loquimur quibus vere competit compositionis nomen, et per quas plura conjunguntur, non dico secundum contactum quantitatis ut duo contigua, neque secundum contactum virtutis ut motor et mobile, sed sundundum ipsam ontologicam entis constitutionem. Et ratio assertionis est quia, si omnis essentia est re idem cum exsistentia, quaecumque inter se distinguuntur realiter, non solum habent suum proprium esse in se, sed imo sunt ipsum suum esse. Ex quo sequitur singulum quodque esse aliquid quod per se est et per se subsistit; sequitur removenda esse principia intrinseca ex quibus ens consurgit, eliminari debere distinctionem materiae et formae, et similiter absurdam fore compositionem substantiae et accidentis . . . compositionem essentiae et esse se habere ad alios omnes realium compositionum modos, ut fundamentale quoddam atque necessarium praerequisitum.[25]

[23] Cited in De Raeymaeker, *op. cit.*, t. I, p. 138.

[24] M. J. Adler, "The Demonstration of God's Existence." *Thomist*, Vol. V (Maritain volume), p. 216.

[25] L. Billot, *De Deo Uno et Trino*, Rome (1926), p. 79.

The Dynamic Order

The history of the fate of the notions of substance and accident in modern philosophy could largely be written in terms of the confusion between being and principles of being. To view substance and accidents as entities, to regard them as separable things, is to misconstrue radically their nature and render their mutual relations unintelligible and absurd. Yet that is precisely what modern thinkers have done.

Descartes here, as on many other vital points, must shoulder much of the responsibility for the confusion. When he offered as a criterion for real distinction the ability to conceive a being clearly and distinctly from all else, he was paving the way for the most astonishing misconceptions of the traditional doctrine. Such a criterion implied that substance, if really distinct from accident, must be a thing set off completely from its attributes. It is not surprising that Descartes had difficulty in imagining such a substance. It was much easier, and far more logical under the impossible conditions imposed, simply to say that the substance was identical with its attributes.[26]

And the path that Empiricism traversed was in the same direction. They looked for this mysterious Aristotelian substance supposed to be hidden under the phenomena, and they did not find it. Strip the object of its sense qualities, they said, and there is nothing remaining. There was a further objection to the notion of substance. What is the value of an inert substratum underlying the ever-changing phenomena? Not participating in the flux of appearances, unaffected in any way by continuous change, it is, they said, a useless thing ascribed to

[26] "Que si après cela nous voulions dépouiller cette même substance de tous ces attributs qui nous la font connaître, nous détruirions toute la connaissance que nous en avons, et ainsi nous pourrions bien à la vérité dire quelque chose de la substance, mais tout ce que nous en dirions ne consisterait qu'en paroles, desquelles nous ne concevrions pas clairement et distinctement la significantion." *Rép. aux quatrièmes objections*, t. 9, p. 173.

the real world. The notion of substance was therefore consigned to the limbo of philosophical myths.

A gross *ignoratio elenchi*, of course. But there was a certain logic to the position, once granted that substance must be construed as a full-blown being apart from its attributes. How then avoid conceiving it as an entity lurking under the accidents, or as an inert something behind the world process?

Our point of departure, in the analysis of the substance-accident relationship, must be the concrete being, and not any preconceived notion of the elements of that being. It is the concrete being which truly exists, and this concrete being is neither the substance nor the accidents alone. Why was this simple and indubitable truth overlooked? The concrete being, moreover, is the thing which changes. It is *I* who change with every corporeal or spiritual modification. It is *I* who become *other*, without becoming *another*, and the sameness with difference characteristic of such changes requires the postulation of two principles, the accident *by which* I become other, and the substance *by which* I do not become another.

With these points established, and with this departure in experience, one can safely enter into the deeper analysis of the nature of substance and accident. Substance is the source of the perseity in the concrete being, or its character of being relatively independent, a character not naïvely to be confused, as some have done, with permanence. In contrast, the concrete being also manifests real aspects which inhere without subsisting by themselves. But it is not a question of first knowing the one and then the other, in passing from I know not what being to another being. The substance is known in itself, to be sure, but always by means of the accidents.[27] In vain will you seek to separate in the order of thought or of being that which is naturally inseparable.

[27] "*Par* les propriétés ces natures sont alors atteintes *en* elles-mêmes." J. Maritain, *Les Degrés du Savoir* (Paris), 1932, p. 405.

Substance, in isolation, is a mere abstraction. It is, in this state, merely the undetermined, and only that which is fully determined can exist. I do not mean to imply that it constitutes with its accidents an *ens per se simpliciter*; its composition with accidents, which are realities of a different kind, prohibit such a unity. Nevertheless, the concrete being has its own peculiar and intimate type of union, which is never to be interpreted in the sense of a mosaic of separate and integral elements.

It is true that St. Thomas refers to the substance-accident union as an *ens per accidens*.[28] But the phrase should be understood in the context of its use. The Angelic Doctor is only contrasting this union with the composition of matter and form, which are incomplete substances, and which in the most rigorous sense of the term alone constitute an *ens per se*. It remains, as Jolivet says:

> que l'unité de la substance concrète lui appartient à un titre particulier: unité d'un genre special, mais unité réelle, non pas oeuvre de l'esprit, mais fondée en la chose, en ce que la substance et les accidents ne font qu'un seul tout et qu'ensemble ils réalisent un seul être.[29]

Another difficulty: how can the real unity of the concrete being be preserved if we multiply the acts of existence, attributing to each accident its own really distinct *existentia*. Mercier refused to admit more than one existence lest the unity of the being be destroyed.[30] But this view conflicts with the thoroughly sound Thomistic principle that proper acts must be coordinated with proper potencies. A substantial *existentia* could not simultaneously actuate a substance and its accidents. The multiplication of existence in the accidental order must be affirmed, but there remains, despite this, but *one* substantial existence, and it is this which confers unity upon the subsisting whole.

[28] *De Ente et Essentia*, c. 4.
[29] R. Jolivet, *La Notion de Substance* (Paris), 1929, p. 62.
[30] Mercier, *Manual of Modern Scholastic Philosophy*, Vol. I, p. 489.

This last point brings out the peculiar status of the substance as a principle of the concrete being. It is not a principle with which accidents can be put upon a par. If by itself it is undetermined, and requires the accidents in the existential order, nevertheless it dominates the compound. Substance, strictly, is not a part of a whole; from the union of substance and accident no third thing strictly results. Rather, the accidents, which are *entia entis*, are drawn to the substance. Their whole *raison d'être* consists in fulfilling the potentialities of the substance. They exist not merely in, but also for, their subject.[31]

I think it is in terms of the empiricist concept of substance, so fraught with difficulties and so vulnerable to attack, that we must understand the critique of Bergson against the general doctrine. His opponent, whether he knew it or not, was Locke, and not Aquinas. His criticisms were just and definitive against the distortions of the substance-accident relationship in modern philosophy. His was an attempt to return to the intuition of the concrete reality immersed in the flux and flow of the cosmos. He was repudiating the concept of a substance that would lie motionless behind the phenomena. He was *in intention*, as Maritain has so well said, affirming once more the vibrant and dynamic character of real being, even if *in fact* the excess of his intuition, or better, the conceptual formulation of it, carried him in the direction of a philosophy of pure change.

The Thomistic answer to both empiricism and the Bergsonianism of fact is to be found in the notion of principles of being. The concrete being is neither wholly static nor wholly dynamic. But the whole of it is both static and dynamic—a position intelligible only in terms of principles, and not of beings.

[31] "Subjectum . . . et accidens non sic uniuntur ut ex eis aliquod tertium constituatur; unde subjectum in tali unione non se habet ut pars, sed est integrum quoddam, quod est persona, hypostasis et suppositum. Accidens autem trahitur ad personalitatem subjecti." St. Thomas, *Comp. theol.*, c. 211.

Conclusion

We have analyzed the three orders of finite being—the essential, the existential and the dynamic. In each order we have seen that the notion of principles of being alone makes intelligible the relations between the composite elements. Matter and form, essence and existence, substance and accident are principles all. The elements exist in, and can be defined only by, their transcendental relation to each other. Conceive them otherwise, conceive them in the sense of fully constituted beings in isolation, and the contradictions pile up. History is there to testify to the insuperable difficulties that arose from the moment this truth was forgotten.

Obviously the term "principle" is not being employed in the same sense to the three different orders. The character of the realities in question, and the character of relations in each case, forbid a univocal application. At each level there is the achievement of genuine unity, but not of the same kind or of the same degree. Nor is "principle" used in a wholly disparate sense. Each exemplifies in its way the transcendental relation of potency and act. And there is a necessary connection between the different planes. There is an *ordination* of them all to the fullness of being, the ultimate goal of the created nature. The term "principle" is used analogically, with the note of "principle" found intrinsically and properly in each order, with a similarity of relations existing between the elements in each of the orders. The Thomistic analogy of proper proportionality finds, I believe, a most suitable application here.

The metaphysical quest after intelligibility cannot stop here. Finite being in no order is its sufficient reason. But we must leave for another time a written meditation upon that rich phrase of St. Thomas: Quae enim secundum se diversa sunt, non conveniunt in unum nisi per aliquam causam adunantem ipsa.[32] Finite being looks to God.

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[32] *Summa Theol.*, I, q. 3, a. 7, c.

AVICENNA AND THE POSSIBLES

ONE may get at St. Thomas's notion of created being by contrasting his with the notion which "essentialist" philosophers propose. As a sophisticated essentialist, Avicenna will do excellently.

It is in his doctrine on the possibles that Avicenna seems best to reveal his notion of created being.[1] A possible being, according to Avicenna, is one of the two classes of being. "Necessary being is being which, if it be posited not to be, involves a contradiction. Possible being, on the other hand, is that which, whether it be posited to be or not to be, is not on that score a source of contradiction. Necessary being is that whose being is necessary. But possible being is that which comports no necessity on any score, that is, neither in its being nor in its non-being. and this is what we understand here by possible being . . ."[2]

There is more in this than meets the eye. The divisions of being, familiar to Christian philosophers, are 1) being *a se*, God, and 2) being *ab alio*, creatures. These last are divided again into a) possible being, which can, but does not, exist, and b) actual being, which does and can exist. Whence, the question arises, Why does Avicenna lump together a) possible and b) actual being *ab alio*? Or, conversely, Why do Christians divide being *ab alio* into a) possible and b) actual being? The reason, as we shall see, is because for Avicenna possible being sooner or later will be; whence, the member, actual being, is

[1] Cf. A. Forest's remark: "C'est, en effet, par rapport à cette question ((quelle est exactement la nature de ces *possibles per se esse*, dans quelle mesure dependentils de la cause premiere?)) que nous saisirons mieux par la suite l'opposition de St. Thomas et d'Avicenne." *La Structure Métaphysique du Concret*, Vrin, 1931, p. 140.

[2] Avicennae, *Metaphysices Compendium*, Ed., Nematallah Carame, Pont. Institut. Orientalium Studiorum, Romae, 1926, Lib. Primi, 2a pars, Tract. I, Cap. I, pp. 66, 67. My translation.

superfluous. Whereas for Christians, not only might actual being *ab alio* (b) possibly not exist at all; possible being itself (a) would not even be possible unless it were *ab alio.*

To return to Avicenna and his point that the dividing members of being are the necessary and the possible. ". . . Next, necessary being can be necessary of itself (*per se*), and it can be necessary, but not of itself. Now, what is necessary of itself is that which, if posited not to be, is contradictory; not, of course, because of something other than itself, whatsoever that other being may be, but ((contradictory)) by reason of its own very essence. But being which is necessary but not of itself, is that which, when some other being, not the one in question (*quod non sit ipsum*), is posited, the one in question becomes necessary. . . . One and the same thing cannot be at the same time necessary of itself and necessary through another. For, once that other is removed, or once its being is not considered, it cannot but be that the necessity of this thing's being either remain in its disposition—and then the necessity of its being will not be through another; or that the necessity of its being do not remain, but vanish—and then the necessity of its being will not at all be through itself. Now, whatsoever is necessary through another is precisely the possible in itself."[3] Clearly, Avicenna means by his possible being: one which must exist, not, so to say, under its own steam, but rather through the causality of another; a sort of adamantine atom to which existence will inevitably accrue. In short, Avicenna's possible being is *both* possible, that is, it is of itself able to be, and necessary, through God.

Those two points need emphasis. First, possible being is possible in itself. "... Whatsoever is necessary through another, the very necessity of its being is of course consequent upon a sort of connection (*habitudo*) or relation. However, the consideration of the connection or relation is different from the

[3] Avicennae, *op. cit., l. c.,* p. 68; Cap. II, p. 68.

consideration of the very essence of the thing itself which has that connection or relation. Whence, since the necessity of being ((of that which exists through another)) is not fixed unless that connection be considered, it then becomes necessary that the consideration of only the essence of the thing demands either the necessity or the possibility or the impossibility of its being. Now, it cannot be admitted that the essence, considered in itself, demands the impossibility of its being: for, nothing whose being is in itself impossible will ever be, not even through another. Nor can it be admitted that it demands the necessity of its being: for we have already said that it is contradictory for a thing whose being is necessary of itself to be necessary through another. It remains therefore that that thing, considered according to its essence, is possible; but considered according to the actuation of its relation to that other, it is necessary; and considered as having that connection with the other removed, it is impossible. But when one considers the essence of the thing itself, quite apart from any condition, the thing itself is possible of itself."[4]

Not only is possible being, when considered quite apart from any extrinsic condition, possible in itself, it is also such that in relation to its cause it must exist. "It has, therefore, been now clearly shown that every being which is necessary through another not itself is possible in itself. The proposition is thus converted: everything possible in itself is, when its being is educed into act, forthwith necessary through another. For, it cannot but be that actual existence either be or not be its true predicate. But it is contradictory that actual existence be not its true predicate, else it would be impossible. It remains, therefore, that actual existence is its true predicate. But, then, either its being is necessary or not necessary. If its being is not necessary—the while, nevertheless, that whose being is not necessary is still possible, then there would be no difference

[4] Avicennae, *op. cit.*, Cap. II, pp. 68, 69.

discernible between its being and non-being, and there would be no distinction given between the disposition which it now has ((when existent)) and its former disposition. The reason is, before its actual existence it was already possible, and it now remains in that, its disposition, just as it was before. If, therefore, a new disposition be posited to accrue to it, then the question will come up about this new disposition, whether, namely, it also be possible or necessary. If it be posited as possible—since this same disposition was already in its possibility beforehand, it follows that no new disposition has accrued to it. But if that newly accruing disposition be posited as necessary and as itself necessitating prior existence, then there should necessarily have been present in that prior existence a sort of disposition which cannot be anything else except its passage to act. It follows, therefore, that its passage to act is necessary."[5] In sum, a possible being, considered apart from the cause which makes it to exist, either can be or cannot be. Now, one may not say that a possible being so considered cannot be, else it would be impossible. And if one says, as one must, that a possible being can be, then the predicate *exists* must either be true or not true of it. But one cannot say that the predicate *exists* is not true of it, else it would be impossible. In what sense, then, is actual existence true of possible being? Certainly, *exists* is not true of possible being by reason of a necessity which is the possible being's own. That would erase the distinction between possible and necessary being. Whence, the predicate *exists* is true of possible being as being necessary *per aliud*.

So far it is clear that the Avicennian possible must exist,

[5] Avicennae, *op. cit.*, Cap. III, pp. 69, 70. Cf. *ibidem*: Iterum, omne quod est possibile esse, vel sui esse (actu) est per se, vel per aliquam causam. Si est per se, ergo eius essentia est necesse-esse, non vero possibilis; si vero per causam, tunc oportet ut vel ipsum sit simul ac est sua causa; vel ut remaneat sicut se habebat ante esse suae causae; sed hoc est absurdum: ergo necesse est ut eius esse sit simul cum esse causae. Ergo omne quod est possibile esse per se, ipsum profecto est necesse per aliud.

even though it be only possible in itself—*necesse-esse per aliud est quidem possibile in se.* Would St. Thomas agree? He would agree thus far: "everything which had its being from another is not of itself necessary, as Avicenna proves, and so possibility involves dependence upon that from which it has being."[6] But St. Thomas means thereby that a possible depends upon the necessary for its existence if it is to exist; whereas Avicenna means that since a possible depends upon the necessary, therefore it must exist, though possible withal.[7] As is clear, both men make possible being depend upon necessary being for existence. The only area left in which they might disagree lies, therefore, in their answers to this question, What is the relation of the possible before it exists to the cause of its existence?

For Avicenna that relation is not exactly that of something unknown or unwilled by God, the cause of a possible's existence. Obviously God knows and wills the possible: "the fact that he ((God)) understands his essence is the cause of his understanding that which comes after his essence."[8] That God wills the possible is also patent: a possible is *necesse-esse per aliud* (God). Avicenna's point, however, is this: a possible being, that is, a non-existent, able to exist, must be possible apart from any relation of dependence upon God's will and knowledge in order that it may be possible, because if it were not so possible, it would be impossible. Now, a cause cannot effect the impossible. Whence, possibles are such, not because God knows and wills

[6] St. Thomas Aquinas, *In II Sent.*, D. 8, q. 3, a. 2.

[7] One may see St. Thomas at grips with Avicennian necessity in: *I Sent.*, D. 6, a. 2; D. 43, q. 2, a. 1; *De Veritate*, 23, a. 4, 5; *Contra Gent.*, 1, c. 81; II, c. 23; III, c. 97; *De Potentia*, q. 1, a. 5; q. 2, a. 3; q. 3, aa. 4, 8, 16; q. 7, a. 1 ad 8; *Summa Theologica*, 1, q. 15, a. 2; q. 19, aa. 1-8. Cf. A. C. Pegis, "Molina and Human Liberty," in *Jesuit Thinkers of the Renaissance*, Marquette University, 1939, p. 114, fn. 55.

[8] Avicenne, peripatetici philosophi ac medicorum facile primi *opera* in lucem redacta, ac nuper quantum ars niti potuit per canonicos emendata... Philosophia prima, Venetiis, 1508, Tract. VIII, Cap. VI, p. 100 verso, B (photostat edition). Text also quoted in Forest, *op. cit.*, p. 160.

them to be such, though he does that, but because such they are in themselves.[9]

In what sense are possibles such as they are in themselves, apart from God's causality? Possibles are of two sorts, possible immaterial and possible material substances. First, the material possibles: they are such as they are in themselves apart from God's causality in the same sense that a material subject of substantial change is presupposed to the action of a cause of that change: that is, possible material beings begin to be from a material subject. "Now, the possibility of being ((of a generable substance)) is not in this, namely, that an agent can effect it or that there be an agent having power over it. In fact, an agent has no power at all over it if this thing itself had not been possible in itself. . . . For if the possibility in itself of the being of anything whatsoever were the same as the power of effecting it, then this would be tantamount to saying that to be able to be something is nothing else but to have power over that over which power is given; and ((it is tantamount to saying that)) there is no power given over the impossible because power over it is not given. And then we should not know at all, by considering the thing itself, whether or no it were "possibled," that is, whether anything had power over the thing itself; but ((we should know)) by considering the disposition of the active power of the agent, whether or not, namely, it had power over the thing. But if we should have some doubt left as to whether power were given or not given over that thing, this we shall in no wise be able to know . . . It is therefore quite clear that a thing's possibility in itself means something different from there

[9] Avicenne, *op. cit.*, p. 85 verso a: omne quod incipit esse, antequam sit necesse est ut sit possibile in se. Si enim fuerit non possibile in se, illud non erit ullo modo. Non est autem possibilitas sui esse eo quod sit potens supra illud cum ipsum non fuerit possibile. P. 104 verso b: nam possibilitas sui esse est ei propter se, non propter principium, sed est ei a principio necessitas sui esse. Texts quoted in M.-D. Roland-Gosselin, O. P., *Le "De Ente et Essentia,"* Le Saulchoir, 1926, p. 153; in Forest, *op. cit.*, p. 139.

being a power over the thing, though both are of themselves the same. That a thing be possible in itself is ((known)) by considering its essence; but that there be a power over it, that is ((known)) through the consideration of its relation to the one who gives to it being. Accordingly, now that these things have been solidly established, we say: whatsoever begins anew to be, before its inception it was either in itself possible for it to be, or impossible for it to be. Now, what is repugnant to being will never be. And what is possible that it be, surely the possibility of its being preceded it. . . . Now, possibility (capacity) for being, that we call the power of being, and that which sustains the power of being, in which this power of being lies, we call a subject, hylen, and matter. There has therefore already preceded everything which begins to be, matter." [10]

As to the relation of possible immaterial substances to the cause of their being, that should cause no difficulty. Quite simply, they do not begin to be. Of course if one wishes to expand the meaning of "beginning to be" so as to signify by it a posteriority, not of time, but of essence, then all things whose possibility of being is logically, not really, anterior to their being may be said to begin to be, even though there never was a time in which they were not. Hence, the possibility of immaterial beings is a logical, not a real, possibility: their essence is logically without act, even though it never was without act.[11]

The point Avicenna is making needs insistence. Stiff and

[10] Avicennae, *Metaphysices Compendium*, Tract. VI, pp. 54, 55. "Possibled" (*possitur super*) means that ad quod efficiendum habetur virtus sufficiens; et hoc est possibile extrinsecum uti vocant. . . . nec alia profecto, habetur vox quae magis apta sit ad vocem arabicam reddendam. Ed.

[11] Avicenne, . . . *Opera*, . . . *Phil. Prima*, p. 92, recto, a, c: . . . igitur omne creatum est ens post non ens posteritate essentiae. Si autem laxaverint nomen inceptionis circa omne quod habet esse post non esse, quamvis non sit haec posteritas tempore, tunc omne creatum erit incipiens. Text quoted in Forest, *op. cit.*, p. 154, and in Roland-Gosselin, *op. cit.*, pp. 156, 157. Vd. Roland-Gosselin, *op. cit.*, p. 154.

spiky with reality, the possible is set over against God. He eyes it with the same constraint with which we should eye it. We, if we wish to make something, must have something to go on, something to start with. Even should we wish no more than to be up and doing, our doing must follow a groove whose possibility it did not crease. Our doing follows those skids of action whose possibility follows the laws of being. We cannot make a silk purse out of a sow's ear. That is impossible, precisely because the possible is a datum given to, but not by, us. We are bound by laws of possibility which do not depend upon us. Just so with Avicenna's God. Possibles are his data, given to, not by, Him. He eyes these data, and what He sees does not depend for its being such as it is upon His seeing. Nor is God's willing of the possible to exist anything more than just that, viz., a willing of the possible to exist; it is not a willing of the possible to be able to exist. Thus, God's willing the possible into existence is a consent to a pre-established state of affairs by which his consent is bound. One may say that God's consent is an acquiescence to the possible's existence; it is neither a willing of the possible to be possible (*that* the possible is in itself), nor is it a free willing of the possible to exist. God wills the possible to exist necessarily though cheerfully.[12]

We may summarize Avicenna's doctrine in the transcription of it which Algazel made. Let us refer to the state of a possible being which is not but can be, as its non-being. Now, this non-being of a possible does not have any relation whatsoever to the one who can make a possible thing to be. "let us, therefore, consider that since a thing made depends upon its maker, it must either depend upon him for its being, which now is, or for its non-being which preceded...; now, it is false that it depends for its non-being, because the non-being which preceded had no

[12] Cf. A. Forest, *op. cit.*, p. 161: Elles (les possibiles) sont constituées indépendament de la volonté divine et de la sagesse (in Avicenna, of course).

relation or connection whatsoever with its maker, since the maker acted on it in no wise whatsoever . . . Since, after it is made, it is clear that a thing made does not depend upon its maker for its non-being, and yet it must depend upon its maker; obviously, the only dependence left is for its being. Its dependence, therefore, upon its maker is for its being, not for its non-being."[13] In other words, the non-existent possible depends upon God only for its existence, which is inevitable, but it does not depend upon God for its possibility.[14] A possible is possible in itself alone, and necessary in its cause.

In what exactly lies St. Thomas's disagreement with Avicenna? Avicenna maintains 1) that the possibles in themselves are possible, independently of God's power, and 2) that they are necessarily willed into existence by God. St. Thomas denies, in the first point, the exclusion of God's power, and maintains that the possibles are willed into existence by God freely.

Let us make St. Thomas's position clearer by the following picture. Let there be God and creatures. Rub out creatures. There are left, in Avicenna's Platonic world, between God and the now non-existent creatures, the Avicennian possibles, dangling in a metaphysical void. Once you delete creatures, in St. Thomas's world, there is not anything left except God. "From the very fact that to-be is attributed to quiddity ((this is possible being)), not only the to-be but even the quiddity itself is said to be created, because, before it had to-be, it was nothing, unless perchance in the intellect of the Creator where there is no creature, but only creative essence."[15] It is thus that St. Thomas answers the objection, since quiddity is outside of or beyond the to-be, therefore quiddity is not created. The answer, quite simply, is that quiddity *is* created. A possible,

[13] *Algazel's Metaphysics*, Ed. J. T. Muckle, C. S. B., St. Michael's College, Toronto, Canada, 1933, p. 49, l. 5 ff.

[14] Cf. *op. cit.*, pp. 50, 51, the expressions: *factor incessabilis*; *si fuerit eternus (factor) erit factura eterna* . . .

[15] St. Thomas Aquinas, *De Potentia*, 3, a. 5 ad 2.

before creation, so far forth as it has any existential status at all, is God himself. Now, God is not created, but possibles are created.

An equally incisive expression of the same general doctrine is had in St. Thomas's answer to the 17th objection of the first article of the same question. The objection runs: "the one making gives to that which is made the to-be . . . Whence, there is something which received the to-be or there is nothing . . . Now, there cannot be nothing. If there is something, it exists before it is made, and it is not God." St. Thomas answers: "God in giving the to-be, produces together with it that which receives being, and so it is not necessary that He act on the supposition of there being something pre-existent."[16] Again St. Thomas is asserting that a creature is created without anything of that-which-it-is to go on; he means that a creature is made to *be* that-which-it-is.

Here it is pertinent to sharpen St. Thomas's point by asking, Exactly what is the status of that-which-can-be in relation to God? The answer might be indicated in this way: St. Thomas cannot even be asked the question. Avicenna can be asked, and we have seen his answer: a possible is a datum, given to, but not by, God; he cheerfully but necessarily wills it into existence. St. Thomas's possible being, however, is not a buffer state between existents and God. What indeed could this buffer state be, which is without existence and yet is not God? Hence, the question cannot be asked, because there is nothing to ask it about. Nothing, nevertheless, hinders us from giving St. Thomas's answer to the wrong question if only on the off-chance that his will be an answer which eliminates the question. Let us, then, assume a possible being, "readied" for existence: a being, able-to-be, but not as yet being. What readies it? Itself? Something in it? Nothing whatsoever, neither itself nor anything in it. "All creatures, before they were, were not

[16] *Op. cit.*, 3, a. 1, 17 et ad 17.

possible through any *created* potency . . . but through *divine* potency, inasmuch as *God* was able to produce them."[17] If we regard the possibles as waiting in a sort of pen of possibility, ready to be turned into the pastures of existence, we have most certainly misconceived their status in St. Thomas's mind. The only pen of possibility, if we must use the expression, which they inhabit before they exist, is God. But that pen is the uncreated power of God to create; it is not the potency of creatures to be created.

The point may be still more sharply focused by asking, Which is true: God can create something, or something can be created by God? The first: God can create something; that is the way to say it. The reason is, if one says something can be created by God, then, before a creature could be, He could have created nothing unless the potency of the creature had anteceded its existence. Now, that amounts to positing eternal matter, exactly as Avicenna did—recall his *factura eterna.*[18]

Thus we have it that for St. Thomas a possible being is not a created potency, nor an uncreated potency which is not God, as Avicenna thought. It is a potency to exist through an uncreated potency which is God. This is not to say that a possible has no internal, no intrinsic, possibility. It is not, e. g., to say that two and two do not, *of themselves,* make four; or that, of themselves, they *could* make five. It is rather to say that the state of affairs whereby two and two, of themselves, make four and cannot make five, is 1) such as it is, in itself, because 2) God knows and wills it to be such as it is, in itself. God, in short, is the source of *posse esse.*

[17] *Summa Theologica,* 1. q. 9, a. 2, *resp.* I have underlined.

[18] *De Veritate,* q. 2, q. 10, ad 2 (*sed contra*): Unde non sequitur quod Deum posse creare aliquid idem sit quod aliquid posse creari ab ipso; alias antequam creatura esset, nihil creare potuisset, nisi creaturae potentia praeexisteret; quod est ponere materiam aeternam. We have seen that the Avicennian possible immaterial beings are only logically, not really, possible. For St. Thomas, possible immaterial beings, or for that matter possible sticks and stones, are really possible before creation, that is, they are non-existent in themselves but possible to God.

As to Avicenna's point, that possibility cannot lie in an extrinsic cause, quite up to the task of causing a possible to exist, if and when a thing is impossible, that is quite true but beside the point. Obviously, an extrinsic cause cannot effect the impossible. But to deny that God is the source of possible being because he is *not* the source of non-being (the impossible), that is nothing less than to draw a red herring across the trail. The question is not this: is God able to produce the impossible? Of course He is not able. The question is this: is, or is not, the possible able to be apart from God's power? Nor may Avicenna be allowed to foul the lines from possibility to its source by asserting that intrinsic possibility must not be confused with extrinsic possibility. Clearly these two possibilities may not be confused. "The possible is compared to power not as a thing measured is compared to its measure, but as object to power." Clearly also, though it may not be so obvious, "the divine power is nevertheless the measure of all powers."[19]

Let St. Thomas himself clarify his assertion that "nevertheless the divine power is the measure of all powers." Avicenna attempts to exempt possibility from having its source in God's power. Here he is at it: if possibility had its source in God's power, we shall not be able to know, since we do not know God's power, whether or no a thing be possible in itself; again, before a thing begins to be there must have preceded it, if it is to be a material substance matter, and, if it is to be an immaterial substance, there must have preceded it logical, not real, possibility. St. Thomas put Avicenna's argument thus: "Everything which begins anew to be, before it was, was itself able to be: for if not, it was impossible that it be and necessary that it be not; and so it would always have been non-being and never would have begun to be. But what is possible to be, is a subject, being in potency. Whence, it is necessary that there preexist before anything beginning anew to be, a subject, being in

[19] *De Potentia*, q. 1, a. 4, ad 2um.

potency . . . " [20] To this St. Thomas replies that, be that as it may as far as substantial changes are concerned, nevertheless when there is question of the creation of being, material or immaterial, then before it was, " it was possible that being be created through the power of the agent, through which it began even to be." [21]

The point St. Thomas is making is easy to miss on two heads. First, one may incline to think that his account allows the possibility of God's knowing and willing otherwise than as to the effect that, say, two and two make four. Not at all. God cannot do that. The reason, however, why he cannot is Himself. His own essence, known and willed by Him to be imitable by way of two and two making four, that is the reason why two and two cannot *not* make four. The reason, that is, why two and two cannot *not* make four is because God cannot know and will Himself to be otherwise imitable, and the reason for *that* is because *He*, the source of being, isn't otherwise imitable. To put the matter in that way is not to deny intrinsic possibility. It is rather to assert it: the necessarily possible is such because of the necessarily actual. Nor is it to limit the power of God. Rather it is to leave that power unlimited: for, divine power has thus no terminus in non-being.[22]

The point is easy to miss, secondly, because we can conceive the possible apart from knowing the ultimate source of its possibility. We are, thence, inclined to attribute to it a to-be (*posse esse*) which is independent of God's causality. We should, however, recall that the being which is attributable to the possible conceived by us is being-conceived-by-us. Now, that sort of being (being-conceived-by-us) is not the possible-which-can-exist. The possible-which-can-exist is the possible which God can make to exist. The possible-conceived-by-us is a definition or part of a definition. No *definitum* is existable because

[20] *Contra Gentiles*, II, C. 35, 3.

[21] *Contra Gentiles*, I, 37, 30. Leonine text.

[22] On this account of intrinsic and extrinsic possibility see *De Potentia*, q. 1, aa. 2-7.

definable. Rather, any *definitum* is definable because existable. Just as the existent, which is, but might *not* be, cannot be understood to exist in terms merely of its definition, but must also be understood in terms of a cause of its existence; so also what-can-exist, but doesn't, cannot be understood to be able to exist merely in terms of what it is; it must also be understood to be able to exist in terms of a cause which can make the possible to exist. An illustration may serve: a man does not exist because he is a rational animal. Nor is a rational animal able to exist solely on the strength of being so defined. The existence as well as the possibility of the existence of a man are both due to a cause: existence, to a cause which affects existence; ability to exist, to a cause which can affect existence.

The difficulty in grasping St. Thomas's position is caused partly by the illusion which Avicenna has created. Avicenna thought that the act of existing of a being *per aliud* was distinct from the essence of such a being as accidents are distinct from substance. He said this, "because in anything whatsoever which has its to-be from another, the to-be of the thing is one thing, and its substance or essence is another. . . . But . . . it seems that he did not speak correctly. For the to-be of a thing, although it is different from its essence, is nevertheless not to be understood as something superadded after the fashion of an accident, but as constituted by the principles of being (*per principia essentiae*). And thus this name being which is imposed ((as derived)) from the act of existing, signifies the same as the name which is imposed ((as derived)) from essence itself."[23] In other words, the man of whom you can say that he is (this "is" names being as derived from the act of existing) signifies the same as the essence of which you can say that it is a man (this "man" names being as derived from essence).

Another difficulty in grasping St. Thomas's position is occa-

[23] *In Lib. IV Metaphys.*, l. II, nn. 556, 558, Cathata.

sioned, perhaps, by St. Thomas himself. The difficulty is doubtless unavoidable because it arises from the impossibility of saying everything at once. At any rate, the difficulty is this: how can the act of existing which *signifies* the same as the essence which exists, how can it fail to *be* the same as that essence. Further, if it is the same, and if essence must always have been essence, how can essence fail always to have existed, even though *per aliud*, as Avicenna maintained. "One must know, therefore, that each and every thing which is in potency and in act is made in act by the fact that it participates a higher act. Now, something is made in act in the highest degree by the fact that it participates, by similation, the first and pure act. Now, the first act is to be subsisting of itself ((note: this first act is not first, pure act; it is first participated act, being—like the first breath of an infant)); whence each and everything receives its complement by the fact that it participates being (*esse*); whence being (*esse*) is the complement of all form, because by it (*esse*) is completed whatever has being, and (whatever has being) has being when it is in act: and so there is no form unless through being (*esse*). And so I say that the substantial being of a thing is not an accident, but the actuality of any existent form whatsoever, be it with or without matter. And because being is the complement of all things, thence it is that the proper effect of God is being, and no other cause gives being[24] . . ." In other words, nothing whatsoever: essence, form, accident, or what have you, nothing is (here "is" names being as derived from essence), unless it be through being (here "being" is the name derived from the act of existing). Now, being (the act of existing) is from God and from Him alone.

If it is, so also is essence, that is, the being named from essence, from God and from Him alone. And *that* is exactly the status of St. Thomas's possible being: it is from God.

This means not only that God, in producing being (here being is named from the act of existing), produces together with it

[24] Quodlibet, XII, q. 4, a. 5.

that which receives being (here being is named from the subject of the act of existing, the possible);[25] it means also that the subject of existence, before it exists, is unintelligible as being a subject of existence, unless it be understood through a cause through which it is able to be. Obviously, the intelligible content of a subject of existence, e. g., a possible man as distinguished from a possible cabbage, can be understood without understanding a cause through which it can be. But any intelligible content as being able to be, that content cannot be understood as being able to be, except through a cause able to make that content to exist. "But intellect can understand something without understanding that it is from God; since the efficient cause is not of the nature of a thing; and so a thing can be understood without it." Quite true. But the whole story is not that. "Albeit the first cause, which is God, does not enter into the essence of created things, nevertheless the being which is in created things cannot be understood except as coming from divine being . . ."[26] Now here precisely there is question of the being which is in created things, viz., their actual or their possible being. That cannot be understood except in terms of a cause which effects or is able to effect being.

We may now fix the relations of the possible to God. A Boeotian will ask, Where does the possible exist? He may be pushed aside with the answer, nowhere, except in God. *Paulo altiora*: Is the possible God? The knowing and willing of the possible to be able to be, yes, that is God. That which God knows and wills to be able to be, no, that is not God. However, and this is the point, that which is able to be, would not be even so much as able to be, unless it were willed and known by God to be able to be. Thus, the creative act of God, which gives to a possible its to-be—any Platonist might say that, gives the to-be to that to which God also, because He knows and wills the *posse esse*, gives its to-be-able-to-be—only a Christian can say that.

[25] Vd. *Supra, De Potentia*, 3. a. 1, 17 et ad 17.
[26] *De Potentia*, q. 3, a. 5, 1 et ad 1um.

We make things which are possible with a possibility independent of our causality; God makes things which are possible with a possibility depending on Himself. Whatever exists, exists only because God had willed to exist that which he has known and willed to be able to exist.

A Platonist has two difficulties against the above doctrine. First, since the possible depends for its being possible upon God, will not that, he will ask, destroy intrinsic possibility, that is, will not necessary relations ($2 \times 2 = 4$) cease to be necessary of themselves, and become necessary only through an extrinsic cause of them? The answer to that we have seen: such relations will *not* cease to be necessary of themselves. In fact, such relations become, if possible, more intrinsically necessary, precisely because they are that which God necessarily knows and wills to be necessary. And that is why they are necessary: they cannot be otherwise, because God cannot know and will Himself to be otherwise imitable, since He, the source of being, *isn't* otherwise imitable. The Platonist's second difficulty arises from having missed the answers to the first. He will wish to know, what about contingent relations, of possibles to their existence, e. g., George, able, but never, to be? (There are many other ways of putting the same second difficulty of Platonists, e. g., what about George, before he is, in relation to God's willing and knowing George? And so on.) Here it is essential to realize 1) that the contingently *possible* is not something which *will* be even though contingently; it is something which is *able* to be contingently, viz., it is contingently *possible*. 2) Thence it is that it is related to God's knowledge and will as something which He wishes to be able to produce and to have the knowledge necessary to produce. "Albeit God never wished to produce such things into being of which he has the ideas, nevertheless He wishes to be able to produce them and to have the knowledge to produce them. . . . those ideas are not ordered by divine knowledge to the effect that something be made in accordance with them, but to this effect that something be able to be

made in accordance with them."[27] In short, the necessarily and the contingently possible ($2 \times 2 = 4$; George, able to exist but not as yet existing, or for that matter never to exist) are both the termini of God's knowledge and will: the necessarily possible is the necessary terminus; the contingently possible is the terminus of what God wills to be able to produce;[28] that is why it is contingently possible. I know of no other platonic difficulty which is not covered in principle by these two answers.

To conclude, both Avicenna and St. Thomas agree that creatures depend upon God for their existence. Avicenna maintains that creatures do not depend upon God for their possibility. St. Thomas maintains that they do: they depend for their possibility upon God's knowing and willing them to be possible. The necessarily possible, God knows and wills to be necessarily possible; the contingently possible, God knows and wills to be contingently possible. To Avicenna's creatures God gives their to-be, but not their to-be-able-to-be. God gives to St. Thomas's creatures both their to-be and their to-be-able-to-be: their to-be, God gives freely; their to-be-able-to-be God gives necessarily.[29] If one fails to see how Avicenna's God can give existence to that to which He has not given the capacity for existence, one has quite seen the point: Avicenna's God cannot create. St. Thomas's God creates: he makes that to exist which can exist because He can make it to exist.

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[27] *De Veritate*, 3, 6. resp. et ad 3um, 4um. Cf. *De Veritate*, 3, 3; 2, 8.

[28] If one asks, could God will not-to-be-able to produce the contingently possible? the answer is, no. But that does not turn the contingently possible into the necessary; it leaves the contingently possible necessarily contingently possible.

[29] This does not mean that what God necessarily knows and wills to-be-able-to-be, necessarily is; it means that what God necessarily knows and wills to-be-able-to-be, is necessarily able-to-be, either necessarily or contingently. Vd. p. 17, n. 2, *supra*.

GESTALT PSYCHOLOGY

Empirical or Rational?

The Problem

WE seem to have much to gain by reviewing the fundamental principles of Gestalt psychology, but it is not altogether clear to the writer that Gestalt psychology as such has contributed any lasting solution to the major problems of the human mind. Dr. Moore[1] has remarked that "the configurational psychology of today is essentially a stepping-stone from sensationalism to scholasticism." The present writer is of the opinion that the empirical foundations of Gestalt psychology are no more valid than those of the old sensationalist school. He does admit that the new approach has done a service in pointing out the inadequacy of pure sensationalism and stimulated much experimental research. He would like to demonstrate that the Gestalt investigators will have to be guided by some sound metaphysical principles before they can hope to find a solution to all the problems which they are attacking. In order to demonstrate the need of some guiding principles, it will be sufficient to review the main problems and to narrate the methods which the Gestaltists have employed in attacking them. After briefly outlining the main problems and their history, we shall sketch what is often termed the critical experiment of Gestalt and try to evaluate it fairly. From this sample we shall be able to reach a decision in the matter of the empirical foundations of Gestalt psychology.

Gestalt theorists discuss three chief problems. They are the nature of perception, the nature of the whole person, and the nature of the group or the social field. These same problems

[1] Cf. T. V. Moore, *Cognitive Psychology*, Lippincott Co., 1939, p. 204.

will be found discussed in philosophical circles. St. Thomas,[2] speaking of the vegetative powers of the soul, states:

> Tres sunt potentiae vegetativae partis. Vegetativum, enim, ut dictum est, habet pro objecto ipsum corpus vivens per animam.

There is question here of immanent action and this property of man cannot be overlooked in any study of the whole person. This immanence is clear in the matter of nutrition, for the ultimate design of the nutritive function is to perfect the organism from which it proceeds by means of food. This totality or immanent unity of the living organism has become one of the topics discussed by the Gestaltists, especially Koffka and Driesch. They have not always been clear in the matter of relating the vegetative processes to that higher unity of organization and purpose manifested in the conscious living human person. We shall not touch upon the philosophical arguments in proof of this immanency, but we ought not forget that they are both inductive and deductive. Many Gestaltists try to make out that the organized living whole is an immediate datum of experience. What they mean is that it is required to complete their theory of higher configurations. The totality is always experienced first. Stern[3] makes the following statement:

> If the Gestalten are made the true fundamental phenomena in perception . . . they would be regarded as elements out of which all mental activity is composed, just as was formerly predicated of sensations. Perceptual Gestalten are autonomous on their level . . . but not for levels above themselves; on the contrary they *receive* their laws and even their existence from a superordinate principle, the *person*.

Were one to ask which whole living organism is the most important one, he might have to say that it is society, because it is a unity of a higher order. Werner, a follower of Stern,

[2] Cf. *S. T.*, I. q. 78, a. 2. Also I. q. 75, a. 1; and I. q. 18, a. 1.

[3] W. Stern, *General Psychology*. Transl. by H. Spoerl, MacMillan Co., 1938, p. 114.

carries the Gestalt argument to its logical conclusion when he says:[4]

> The totality is not a superordinated unity built up of elements and something more than their sum. It has an entirely different origin; it is prior to any division into elements whatsoever . . . Ethnopsychology must proceed from larger living unities and arrive by analysis at unities of a lower order . . . The component members of a mass are dependent parts of this mass, which represents the real, living unity. The single man as a member of a generic unity possesses characteristics which are his because of his integration within a totality, and are intelligible only in terms of this totality . . . The problem of generic unity can be solved only by conceiving this unity to be a non-derivative whole governed by special laws which affect the human bearers of this unity in their role of dependent members . . . Forms of expression like language, religion, and law, can never be rooted in the isolated individual . . . his thinking and talking and acting are understandable only in so far as he is identified with this totality.

These citations seem apodictic enough but they tell us very little about the real nature of a totality and less about how we come to discover it.

Those philosophers who speak of the existence of an internal sense which synthesizes parts into wholes of experience also tell us why this must be so. Brennan states:[5]

> We infer that the concrete and individual effects of sense are known separately by the external sense and collectively by common sense . . . Nevertheless they (the internal senses) are able to prepare the way for such (universal) knowledge by the total patterning of their activities.

And St. Thomas tells us that the external senses must have a common source or principle to which they are referred as to a term, and that this cannot happen through the proper sense alone. He says:

[4] H. Werner, *Comparative Psychology of Mental Development*, Harper Bros., 1940, pp. 8 and 9.

[5] Brennan, *Thomistic Psychology*, N. Y.: MacMillan Co., 1941, pp. 144-145.

Sensus interior non dicitur communis per praedicationem, sicut genus; sed sicut communis radix, et principium exteriorum sensuum . . . Oportet ad sensum communem pertinere discretionis judicium, ad quem referantur, sicut ad communem terminum, omnes apprehensiones sensuum; a quo etiam percipiantur actiones sensuum, sicut cum aliquis videt se videre. Hoc enim non potest fieri per sensum proprium, qui non cognoscit nisi formam sensibilis a quo immutatur.[6]

Professor Bühler was not exaggerating when he noted that the concept of patterning or synthesis, so commonly met with in Gestalt psychology, is an old one. Though a pioneer in Gestalt psychology, he always looked with favor upon the notion of a higher faculty of thought. But we must remark here that the Gestalt notion of patterning in its details seems rather far removed from that of St. Thomas Aquinas. The latter takes the existence of proper sensible qualities in the stimulus object for a fact, and derives his theory of knowledge coherently with the assumption that sense faculties will be needed in order to receive and combine impressions into wholes. The Gestaltists rather take the total percept as the given. It is not always clear whether they mean by percept a unified substance, a total field of vision, or the *awareness* of the properties of the total situation or object. In this percept, they say, we can analyse out the various sensory qualities somehow, although elementary sense data are not important. They rightly argue, against the sensists, that sensory perception is never purely passive and mechanical, but get involved in grave difficulties in explaining how the total active mind puts *meaning* into the percept.

Finally we come to the problem of the nature of the person. Boethius' definition was accepted by St. Thomas, which states that the person is "rationalis naturae individua substantia." Explaining further, the Angelic Doctor makes clear that the person is not a universal but a responsible individual, and that he is not a part that shares the existence of another, or is com-

[6] Cf. *S. T.*, q. 78, a. 4, ad 1 um., ad 2 um.

municated to another as a part to a whole. The human person is a "Substantia prima, incommunicabilis, non assumptibilis."

"quodam specialori et perfectiori modo invenitur particulare et individuum in substantiis rationalibus quae habent dominum sui actus . . . in praedicta definitione personae ponitur *substantia individua*; in quantum significat singulare in genere substantiae." [7]

"Neque superflue additur, *individua*; quia nomine hypostasis vel substantiae primae excluditur ratio universalis et partis." [8]

The great insistence which the Gestaltists place upon the totality of the individual person is in itself highly commendable. But since they lack a system of first principles it is often difficult for them to come to any agreement among themselves. The totality of the person is sometimes so exaggerated that they will not allow of any distinctions of sensory and rational powers belonging to man's nature. He must act as a whole in the same way always. On the other hand the unity of the group, the "social field," may be so much stressed that there does not seem to be any way of determining where the individuality of a person begins or ends. Koffka, and the above-mentioned Werner are the chief offenders in this regard. Of course the followers of Koffka, in America at least, do not all make the individual person out to be a non-entity. Klineberg, a recognized authority on race psychology, sees the need of a healthy "individualism" with due regard for the "whole" as well. He says:

The problem of whether a new psychological entity arises whenever individuals constitute a group has been given a practical turn as the result of recent political occurrences in Europe. . . . In the writings of Hegel . . . there developed a romantic and mystical concept of the nation as having a reality and an importance distinct from the individuals who compose it. This has led to a false distinction between the welfare of individuals and the good of the group or nation . . . the national good is paramount. . . . As Lewin has pointed out we must not look upon

[7] *S. T.*, I. q. 29, a. 1, corp.
[8] *Id.*, ad 2um.

the individual as a static entity, but rather as a dynamic being whose characteristics and actions change under the varying influence of external situations or the "social field." . . . We may . . . agree that the whole is always different from the sum of its parts, that it even determines the nature of the parts, and that a group has a reality different from the sum of its parts. We must not lose sight of the nature of the individuals who constitute the group.[9]

But do the Gestaltists admit the importance of the elements which constitute the totality, in perception, in person, in society? In order to answer this question we must recount some of the salient facts in the history of the Gestalt theory. Since the theory claims to have an experimental foundation, we shall have to see how "real" the parts of the perceptual wholes really are for the Gestalters in question, for upon this crucial question depends the whole superstructure of the Gestalt theory. Every writer whom we have consulted on the subject, appeals to these experiments on perception as the "empirical basis" for Gestalt theory. Out of the notion that the "whole" was prior to the parts in the very first experience of any individual, seems to have developed the Gestalt notion that all wholes are more important than any parts. The three questions of the totality of the perceptual experience, the person, and the group are closely interrelated questions. In order to clarify our thinking about them we shall have to study the hierarchy of wholes by approaching it piece-meal. And we shall follow their rule by beginning with the percept and not with the person. Only after the empirical foundations have been examined will a critic be able to answer the question whether the later extensions of Gestalt theory to sociology and education were of the nature of legitimate deductions from their experimental evidence, or whether they were the result of new assumptions drawn from other sources. He will not be distracted from his investigation by the fact that Gestalt theory has been fruitful of many

[9] O. Klineberg, *Social Psychology*, Henry Holt Co., 1940, pp. 330, 331.

ingenious experiments on children and animals which would never have been undertaken had not the theory already received such general acceptance. Nor will he be content with merely citing the authority of persons who make usefulness the only criterion of truth, or who employ methods of investigation derived from the new theory while they admit that it is not well-founded. Thus we read:

> The Gestaltists emphasize the totality of the learning process; . . . A Gestaltist might point out that the hungry infant is a totality responding to a total situation and that the various aspects of its behavior cannot be understood when taken separately . . . The child gets sudden insights as he strives to reach his goals. When the insights come slowly, the situation is said to be too complex for the child's present level of development . . . This theory has a contribution to make to our better understanding of how children learn. It has not been widely accepted because some of its generalizations have little or no scientific evidence to support them.[10]

The History of Gestalt: The Theory in Practice

Medical men have accepted Gestalt as a working hypothesis. We quote:[11]

> All the modern (dynamic) theories agree that the personality is to be understood as a pattern of personality traits . . . are inclined to look on the organism as a super-summative whole . . . an organized totality in which change in any of the parts effects changes in all the parts. . . . Sickness is a psychobiological restructurization of the parts in the attempt to achieve a reorganized totality. . . . The mentally ill individual is not to be considered as lacking in one of the parts or as having the parts improperly connected but rather as a Gestalt undergoing restructurization. . . . Motivation forces become blocked by social or physical barriers. Frustration is the result of this.

[10] C. E. Skinner, *Child Phychology* (P. L. Harriman ed.), MacMillan Co., 1941, p. 206.

[11] J. F. Brown, *The Psychodynamics of Abnormal Behavior*, McGraw-Hill, 1940, pp. 145 ff.

Physiologists speak the language of Gestalt also. Watson's behaviorism has to be modified, they think. Again we quote:[12]

> These observations are diametrically opposed to the naïve theory (of Watson) that behavior is primarily compounded out of elementary units such as reflexes. . . . Two processes are operating simultaneously in the development of neural mechanisms. The primary one is the expansion of the total pattern; the secondary one is the struggle of local mechanisms to acquire autonomy from this dominant unity. . . . Gestalt psychologists are undoubtedly right in their assertion that when ground changes to figure, it is transformed into a new phenomenal object and possesses new properties. . . . It is the cortical "set" and the reactions made to objects of vision which organize the sensory excitation into figure-ground patterns, and not the objects themselves.

In their ardour some investigators make extreme statements so that we sometimes wonder how we can ever come to rest in this matter of physiological speculation. K. Lashley claimed in 1930 that there is not a shred of direct evidence that a synapse varies its resistance through exercise or practice in learning, and that although the essential feature of a reflex theory of learning is the assumption that individual neurons are specialized for particular functions, there is no scientific evidence that there is a one-to-one correspondence between any particular neural structure and its function. The brain acts as a whole.[13]

All these workers are united in denying the validity of the "elementarist" hypothesis, of the associationists as well as of the behaviorists. They do not claim any direct evidence for the new theory, but only that it is more fruitful of further experiments. We now indicate the humble beginnings of this widespread revolution in the camp of physiologists and psychologists.

[12] G. L. Freeman, *Introduction to Physiological Psychology*, Ronald Press, 1934, pp. 24, 305.

[13] Cf. *Psychological Review*, Vol. 37, N. 1.

The Theory in its Humble Beginnings

In Europe the Würzburg School of Külpe, Bühler, Lindworsky, etc., had consistently opposed the atomism of the sensists. Bühler is rightly considered the founder of the psychophysics of Gestalt, for back as far as 1913 he established the fact that Gestalt moments or qualities were more pronounced in experience than were sensory elements, and that the sensitivity of the perceptive process was even greater for these "proportional" qualities than for absolute perception of length or breadth of parts of a figure. We quote:[14]

> Als eigentlicher Begründer der Psychophysik der Gestalten ist K. Bühler anzusehen . . . Die Realwirksamkeit von Gestalt-momenten steht ausser Zweifel, wenn *Proportionsänderungen* von Rechtecken in der Dimension schlank—plump auffälliger sind und eine feinere Schwelle haben als das blosse Länger und Kürzer von Strecken oder Distanzen, die in die Figuren eingebaut sind.

Naturally the Germans are interested in the thresholds which can be measured because these were the "elements" in the older psychophysics of Fechner. Bühler was hailed as a real discoverer because he measured the thresholds for Gestalten. He concluded that, since the effect of the whole on the part of a given figure was more pronounced than the effect of the single parts on the sense organ, the *order* of parts was more fundamental, primary, than the parts themselves. He and other diligent experimenters then launched attacks against the sensism of Wundt and Titchener, who held that the isolated sensory elements were primary and that the mere addition of them produced judgments. They united in rejecting the "constancy-hypothesis" of all sensists. According to this hypothesis there was supposed to be a one-to-one correspondence between the stimulus elements and the conscious response.[15] The sensists

[14] E. Brunswik, "Prinzipienfragen der Gestalttheorie," in *Beiträge zur Problemgeschichte der Psychologie*, Jena, 1929, p. 106.

[15] Cf. K. Bühler, *Die Gestaltwahrnehmungen*, 1913, passim.

had further inferred that the total "mind" was the mere sum of the sensory elements gleaned from experience. The Gestaltists, having demonstrated that sensory perception was more than the mere sum of separate sensory elements, now extended their theory. They said that the totality of mental experience is something more than the mere sum of the experiences, it is a totality or organization of a higher order.[16]

It becomes clear that both the earlier and the later Gestaltists are opposed to the efforts of the elementarists or atomists to break up experience into parts and join them again into aggregates. Let us return to Bühler's experiment. He had scathingly criticised the physicist-sensist, E. Mach by appealing to the fact that our apprehension of optical similarities (proportions and parallelisms) was not a group of mere sensations. They were apprehensions of relations which defied analysis into sensory elements. In his lectures he keeps recalling the double criteria as proof of the need of a higher faculty for apprehending the "meaning." The first criterion is that of transposability. Thus, a melody can be played in any key and it remains the same melody. Since the parts (tones) could be changed without changing the nature of the whole (melody), the whole had to be something different from the mere sum of the parts. Thus the criterion of supersummation was reached by the application of the philosophic argument that separability implies distinction, that to change a thing without changing it (the melody) implied more than just aggregation of parts. But Bühler cleverly remarks that the high or low melody really have differences, in relief, volume, etc., and that in either case the "parts" have objective relations, v. g. frequency of vibrations. There is a summation of parts in any whole but the total experience is not a mere *sensory aggregate*. It is not at all clear that his "something more" than sensation was in the mind or in the object or in both.

[16] Cf. Stern, the Hamburg Gestaltist, cited above, our page 2.

The period from 1890 to 1913 was taken up with the theoretical discussions of Gestalt in Europe. These are said to have paved the way for the beginnings of "objective" psychology or behaviorism in America. The reason will be clear from our account. At least two opposing camps were soon set up in Europe, namely the sensualistic and the psychistic-intellectualistic. In both camps the whole discussion seems to have hinged on the point of the causes of Gestalten. The sensists maintained that circumscribing movements of the eyes could account for the totality or configuration. Experimenters proceeded to show that eye movements did not correlate with mental events at all. Then G. E. Müller and his followers tried to attribute the wholeness or relatedness of the parts to acts of attention. Bühler and others pointed out that wholes could be perceived without any conscious attention, and that we often attended to the parts and perceived the whole. Then there were the "functionalist-feeling" theories of T. Lipps, and of the Genetic Psychologist, F. Krüger, whom we must quote as being rather important in social psychology.[17]

> We dare not fall back again into that way of thinking which was a stranger to totality and therefore to genetic development. The part-coherences of mental events . . . are in reality always imbedded in more embracing unities of experience; . . . and conditionally dominated most effectively by the whole totality which we recognized as the emotional. They must be theoretically incorporated within the structural whole of the organisms in their genetic regularity, and ultimately within the structure of culture.

This is emotionalism at its best, and the theorists state, obviously without much proof, that we do not perceive Gestalten at all but that we always experience them deeply in our emotional life. We feel our way psychically into the pattern of a melody, a poem, a triangle, etc.

[17] F. Krüger, "The Essence of Feeling," in *Feelings and Emotions.* The Wittenberg Symposium, Clark University Press, 1928, p. 82.

The Graz School (Meinong-Benussi) had claimed that complexes of sense data were primary, but that the psychic act must add the Gestalt or the relation. It was produced by the mind, it was synthesized. The Gestalt was the form (founded content) whereas the sense elements were the matter. This school, which obviously tries to account for both objective and subjective relations, never brings the two together.[18] They cannot be sure that there is a form in the thing itself which is "founding." Spearman, not unschooled in Aristotle, claims that these Gestaltists have confused their categories, as well as their notions of subjective and objective. They look upon the mind as a synthesizer when it can also analyse parts. They find forms cropping up in the mind which are "realitätslos," whereas the matter exists without form.[19]

In opposition to the Austrians, the Berlin workers soon argued that what is in the mind must also be represented, in parallel fashion, both in the real world and in the physiology of the organism. Gestalten must be sought everywhere, in such wise that the continuity between them will not be broken. In 1918 came the famous experiments of Wertheimer on "phi" or apparent movement. From these it was argued, that, since we can experience a continuous flow of sensation across a small visual field in which only two terminal areas are being actually stimulated, the inner physiology of the organism or some central psychic factor must be invoked as the cause of the Gestalt perception. If the physiological factors could cause the "filling in" of the gap, then psychic causes would not be required. Köhler and Koffka carried these notions further and were largely responsible for the establishment of Gestalt theory in America. They attempt to find Gestalten everywhere, physical, physiological, and psychological Gestalten, and try to reduce the laws

[18] Cf. Brunswik, *op. cit.*, p. 102.

[19] Cf. C. Spearman, *Psychology Down the Ages* (London: MacMillan, 1937), pp. 440 ff.

of their formation to an accurate science. This radical sensistic or materialistic Gestalt theory has been criticized, on the basis of its scientific validity, by Professor Peterman of Kiel in several volumes. This critic shows that most of the so-called scientific proofs for Gestalten are not proofs at all but preconceived notions.[20]

We have collected these facts from the history of Gestalt in order to show that the theorists are all filled with a desire to do away with atomism in psychology; and that they are not content with attacking simple problems of perception. Their speculations reach out and include such knotty problems as the relation of the part to the whole and the relation of mind to matter.[21] Their arguments all seem to begin with a fundamental fact of experience, namely the perception of any configured whole, and to be followed by attempts at verifying the secondary assumptions by means of experiment. (We are not here including the more general cases of Ganzheiten which played so large a part in German philosophizing). There is an implicit assumption in all this work, namely that every perception can and must be explained by the same general law, regardless of the nature of the object. They will not change this assumption even though it leads to insoluble (to them) dilemmas. We may take the case of super-summation, for example. The whole melody had to be something more than the mere sum of the separate tones. There is never much interest in the question as to whether the melody was an actual fact, or was actually appreciated as melody, or merely dinned into the ears of a half-conscious individual; it was the same in any key even though the tones were different. One would perhaps be considered dodging the point if he were to suggest that such two melodies would actually have been

[20] Cf. B. Peterman, *Die Wertheimer-Koffka-Köhlersche Gestalttheorie*, 1929; and *The Gestalt Theory and the Problem of Configuration*, Transl. by Meyer Fortes (London: Kegan-Paul, 1932).

[21] We are indebted to the Lectures of Prof. Bühler and to the work of E. Brunswik for this summary. Cf. Brunswik, *op. cit.*, pp. 97-116.

numerically, if not specifically different. But Gestaltists have already formulated a more general principle from all such cases. It reads: things objectively different can be phenomenally the same, and things objectively the same can be phenomenally different, when the mental combinations are adequate. Stated simply, this appears to mean that things can appear otherwise than as they really are. But instead of clarifying the meaning of this new formula, the Gestaltists raise a further general question. It is this: is this identical experience of the complex quality or Gestalt a separate and independent experience over and above that of the sensations themselves? This question they can never answer, simply because the meaning of the terms is not uniquely determined. The above-mentioned principle might mean that perception is in error, or that the idea derived from sensations is different from the mere sensations, or that there are no objective relations at all and the mind creates them for every Gestalt. In some cases we undoubtedly perceive objectively related wholes as wholes immediately, in others we relate them to their parts and to other objects in a new way. Fröbes reviews the whole literature of Gestalt taking care to point out this confusion of terms and of fundamental assumptions.[22] Unless we make some supposition as to whether or not the elements of sensation actually exist outside of the mind, and as to the manner in which they could exist in the mind, it will be impossible to state what the Gestalt axiom really means.

The way in which the conflicting schools of Gestalt attempted to answer the question of the independent act is interesting because it shows the influence of Brentano's early teaching upon the Austrian thinkers, and at the same time indicates the extremes to which the problem of "atomism" had been pushed. The Austrians postulated a separate act, over and above the sensory processes, for the perception of every Gestalt. They

[22] Cf. Joseph Fröbes, S. J., *Lehrbuch der experimentellen Psychologie*, Band I, Mit Nachtrag 1935 (Freiburg: Herder, pp. 446-456).

required the first sensory reception or passive modification of the sense organ, and the higher operation of comparing and joining the parts. There was the picture-like perception (the appearance), and the thought-like act, giving form or meaning. When asked by the opposing school whether or not these objective parts of a Gestalt were objectively related to each other prior to the mental act, they got themselves into this tantalizing dilemma. If the parts are said to be actually related before the mental act, then they must have acted separately *as parts* on the sensory mechanism and this was ATOMISM. But if they are not said to be so related, then what function could they possibly have in producing a true perception of a totality? Koffka uses this argument to show the superfluousness of the separate act, whereas Wertheimer permits physiological "fillers" to supply the combining forces. Koffka concluded that the unique act of perceiving Gestalten immediately sufficed, and that the mind was the real cause of the relatedness thus making the sensory stimulation merely a condition. We shall permit the reader to steer his way through this dilemma unaided by our feeble assistance. Bühler was one of the few Gestaltists who realized that an act of a higher order would be needed for relating conceptually (insightfully) those things which had real relatedness in themselves.

Most of the Gestaltists state that the wholeness or pattern is presented to consciousness immediately, and hence there is no need of a higher act and animals can perceive these relations as such. They look upon the perceptive whole, not as a summation of separate sensations, but as something immediately given, in which the "elements" will have to be found by analysis later on. To avoid the terrible pit of Atomism they cling closely to the horn of subjectivism, as we shall see in the following section. We note in passing that the theorists are speaking principally of "quantitative" parts and not of the "proper sensible qualities." It would be interesting to try to discover

whether they have added anything to the ancient question of innatism versus empiricism in the matter of "space" perception. It always seems to the writer that they rejected the empiricist view (atomist) simply because it was inadequate and then failed to give a more adequate explanation short of innatism. As is well known, their later discussions included immediate perceptions of fused configurations made up of spatial, as well as "proper sensible" qualities,—the taste-smell pattern, the sight-sound pattern, etc.

Prelude to an Experiment

Starting out with the question as to how the mind comes in contact with reality, the Gestaltists are united in repudiating the notions of the sensists, chiefly of Locke, Wundt, Helmholtz and Fechner. These men had pointed out that sensations report happenings *only* dependently upon the nature of the sense organs themselves. They claimed that thus no direct knowledge of the external world was possible. Electrical stimulations, drugs, etc., could give the same impressions as "real" stimulations. They held to what Köhler has called the "constancy hypothesis," namely that these sensations combined in a mechanical way to form the percept, and that the significance of these summated sensations had to be derived from memory or unconscious judgments of various sorts. This explanation had always constituted a difficulty because our picture of the outside world, being distorted from the very beginning, would be nothing but a summation of illusions supplemented by judgments which supplied the meaning. Perhaps Watson had some justification for his bitter feelings against such a theory of meaning. Gestaltists now argued that there were characters given in perception which have no corresponding happening in the sense organ. Such qualities were depth, color constancy, and to a large extent, contrast. If these theorists are really in earnest

about avoiding ambiguities, they ought to explain what they mean by "no corresponding happening." Only for an idealist could it mean "no necessary or useful" happening. For a person interested in the total causes of our thoughts and ideas it might mean that the sense-organ itself cannot supply an adequate explanation of thoughts and judgments. But instead of clarifying these little items the Gestaltists go on to experiment upon the "ambiguous" figures. Their avowed purpose is to demonstrate the truth of their principle, that things objectively the same could be phenomenally different, and vice-versa, as if this were the fundamental problem.

Their Experiment

Certain situations can be set up in the laboratory,—and they are certainly duplicated in situations outside the laboratory,—in which the perceived brightness of an object-color depends entirely upon the total configuration and illumination which are active at the time. This percept does not depend upon the activity of the separate visual areas which are being stimulated, they say. Thus a black paper, when strongly illuminated, appears darker than a white paper in a shadow, even though both papers reflect the same amount of light energy to the eye of an observer. Things objectively the same are phenomenally different.

Now these facts of "color and brightness constancy," so universal in visual experience, had been well known to the earlier investigators, especially to Helmholtz. Older theorists called them the "illusions" (really to the second degree), because they assumed that the happening in the end-organ had to be taken as a basic fact. Since their time we have discovered some more complicated happenings in the end-organs and the nerves, many of which constitute even greater difficulties than before, and we have discovered that some of their earlier descriptions of these happenings were faulty altogether. We

allude to the phenomena of spread and of summation in the retina. These newer facts seem to have been largely responsible for the change of front in psychology, for since Johannes Müller and Helmholtz, there has been a tradition that the facts of physiology must take precedence over those of psychology. Gestaltists at long last, realizing that they cannot quite keep up with the rapidly changing discoveries in other sciences, decided to formulate their own laws. Since the same stimulations can give rise to different experiences, why not try to explain all these conditions of total stimulations rather than concentrate on the part processes, they reasoned. There is one more assumption only that is needed to fit all the facts, they think. Let perception be assumed to be due to the activity of the organism itself, not to the action of the stimulus on the sense-organ. And we have already seen how a physiologist has neatly fitted this concept into the frame-work of physiological theory, the "cortical set" is the activity of the total organism which will account for the organization of perceptual wholes (cf. our p. 6).

In this series of reasoning processes we see that emphasis has merely shifted from the "end-organ" of sensation to the inner aspect of experience. The investigators have not solved the problem of getting mind in contact with reality, they have merely shifted it farther away from the surface of the body. They have, in so doing, opened up a whole new realm for experimentation, the domain of "sets," of total situations, and of colligated or configural conditionings. Professor Thouless[23] is the writer who states most clearly that the Gestaltists are engaged in making assumptions which are fruitful of further research. He too, clearly realizes the need of accepting the reality of the stimulus as a fact. He says:

> Many facts are hard to explain on the hypothesis that perceptions are built up out of sensations; but these are easily understood if we

[23] Cf. Thouless, *General and Social Psychology*, pp. 229 ff.

suppose that a perception is not something produced by a stimulus but by the activity of the organism itself. . . . Sensory stimulation is a necessary condition.

He is one of the few authors who has recently written on both general and social psychology. Could it be that he sees the implications for society and for a study of personality contained in the assumption, "the part has no existence in the whole?"

It has been necessary to review these disputes about basic assumptions in order to understand the importance of the question of the existence of the parts or elements in a Gestalt. We have seen no direct experimental attack upon the problem of the totality of the person or of the group. Hence, in all likelihood those who see in Gestalt psychology a proof for these totalities, failed to notice that the "activity of the total person" in perception was an assumption, or a tentative conclusion, not a fact directly discovered by erudite experimentation. Nor was the "primacy of the whole" over the parts a universal fact of experience such as it has been made out to be. The writer has known priests in Austria who had to battle with this very problem concerning the proofs for the primacy of the whole over the parts, when the totalitarian philosophers began publishing scientific and philosophical treatises. They found it necessary to review the history of Gestalt psychology, and to investigate the empirical data which we are describing here. Unfortunately, they were not at liberty to publish the results of their investigations.

The Full Account of the Experiment

Professor Woodworth of Columbia [24] outlines the experiments needed to test the validity of the Gestalt hypotheses. Students at the Loyola Graduate School have repeated most of these experiments, and they are unanimous in admitting that one

[24] Cf. R. Woodworth, *Experimental Psychology* (New York: Holt Co.), Chapters 21-26.

really needs to perform them himself in order to realize their significance. We need report only one here as a sample. It is the case of the brightly illuminated dark paper and the shadowed white. These two can be made to reflect exactly the same amount of light to the eye. But then how do they appear? As a matter of fact they may both appear equal, or the black may appear darker than the white, depending upon the attitude of the subject. Especially significant is the fact that the subject must take a naïve attitude, make a snap judgment, if he is actually to experience the *inequality*, that is the object color of the black, in spite of the equal stimulation of his eyes. Another factor which is important is the source of the light stimulus upon the two patches. Of course he will perceive the actual *equality* when he uses a reduction screen, that is, separates out only a very small portion of the stimulus fields. In other words, under certain conditions, the true stimulus value, the happening in the end-organ which is proportional to the outside stimulus, is represented to consciousness. Under other conditions it is not. The stimulus elements are determiners of perception, even though the way in which they determine may vary from situation to situation. The thinking subject corrects impressions constantly to meet the demands of the changing environment. But his judgments of equality or inequality of objective experiences imply more than just passive sensory perception of already configured wholes. To say that each perception requires a reorganization of his total active Gestalt, his dynamic person, may give expression to a fact, but the details of the processes involved are just as vague as before. Judgments are, no doubt, active, and founded upon impressions received from the real world, and patterned by a process of integration, but the discovery of this fact is not new.

Thus from the experiments taken as a whole, we are led to the conclusion that identical stimulations may result in either identical or non-identical experiences. But in either case the

objective stimulus is partly responsible for the result. The Gestaltist has not disproved the existence of the objectively related "elements" or parts in an extended object against the atomists. He has merely demonstrated the necessity of taking all the factors, subjective as well as objective, into account when we investigate perception of "configurations." He has supplied very little information as to how the supersummation of parts into wholes with MEANING actually occurs, little evidence for a new theory regarding the origin of ideas.

We need not delay upon the interesting philosophical speculations arising from the fact that perceptual experience seems always to be a compromise between actually physically stimulating conditions, and the *known* real object, that color and size constancy is never perfect. These facts show clearly the limitations placed upon the sensory powers by the spatial and temporal aspects of sensation. Brunswik, a student of Bühler, has written learnedly on this philosophy of the "middle object." Whatever may be said for his philosophy, he certainly does not deny the reality of the stimulating situations. Nor does Woodworth do so, although he is rather vague as to the manner in which stimulus and object values are related to each other and to the perceiving subject. He says:[25]

> The perceptual response is not the only response to the stimulus. . . . The total impression seems to combine what have been traditionally called sensations (happenings in end-organs), and perception, . . . If the perceptual apparatus is immediately set, or adjusted for an illumination, a stimulus will be corrected as it is being received.

Thus experimenters have a new tool to work with, namely the inner set or attitude of the subject of any experience. The experimental evidence, as we see it, goes no further than to give us some ambiguous descriptions of the manner in which conscious sensation corresponds to objective stimulations. Any

[25] Cf. Woodworth, *op. cit.*, p. 621.

further generalizations regarding the nature of the individual (how parts exist in the total man and how a totality of this sort can act), and of the group, cannot be said to have been founded on experimental evidence alone. They always result from secondary assumptions, usually of a philosophical nature. Gestalt psychology then, in its entirety, ought not to be called empirical, nor even investigative only, in the sense in which Brennan[26] uses the term. It is both investigative and speculative to a high degree, with probably much more insistence upon the speculative or philosophical aspects, at least in European circles.

NOTE: Excellent and exhaustive bibliographies on this subject may be found in: "Beiträge zur Problemgeschichte der Psychologie," *Festschrift zu Karl Bühler's 50. Geburtstag*, Jena, 1929, pp. 144-149; (Brunswik lists 185 works, mostly German) and in *The Gestalt Theory and the Problem of Configuration*, by Bruno Peterman, Transl. by Meyer Fortes, London: Kegan-Paul, 1932; pp. 321-329 (over 280 works).

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[26] Cf. Brennan, *op. cit.*, p. 52.

NOTES AND COMMENTS

NATIONAL MEETING OF ASSOCIATION

The next annual meeting of the American Catholic Philosophical Association will take place at Hotel Sherman, Chicago, Illinois, on December 29th and 30th, 1943. The general theme of the meeting, to be discussed at the morning sessions, will be "The Role of Philosophy in Post-War Reconstruction." Aspects of this subject will be presented under the sub-titles of "The Classical Tradition in Philosophy as a Basis of Post-War Philosophy"; "Some Moral Problems of a Victorious Army of Occupation"; "Philosophical and Psychological Adjustments of Victor and Victim"; "The Natural Moral Law as a Foundation for International Law"; "International Cooperation in Philosophy." The afternoon sessions will be taken up with round tables in the various divisions of philosophy. The meeting this year was to have been in honor of the seventieth birthday of one of the founders and second president of the Association, the late Rev. John F. McCormick, S. J., professor of philosophy at Loyola University in Chicago. Father McCormick's sudden death on July 14th has made that arrangement impossible. Instead the meeting will be in the nature of a memorial to him. The volume of philosophical essays prepared by his pupils and being published in this and the two following issues of *New Scholasticism* will also appear as part of that memorial.

Before arranging the meeting of this year the Secretary consulted with the Director of the Office of Defense Transportation. The latter suggested that as far as possible long distance travel be avoided except in the case of officials, members of the executive council, and appointed officers. Hence all speakers for this meeting are of necessity from Chicago or vicinity or from the list of officials of the Association. This will mean a meeting largely local in character, but the Executive Council felt that such an arrangement would be much better for the interests of the Association than indefinite postponements of meetings until the end of the war. This action is, further, in line with that of practically all other organizations of the character of our Association. All papers will be printed in the Proceedings as usual and distributed to all members.

During the year a number of additional local Round Tables in

Philosophy under the auspices of the Association have gotten under way and the Secretary is most hopeful of much greater extension of this activity. Rev. Leo R. Ward, C. S. C., of University of Notre Dame is chairman of the association committee directing this work, with one or several members from each of the larger cities as members of the sub-committee. The latter are asked to act as chairmen in their respective localities for the inaugurating of a local round table and the preparing of programs from time to time through the year. The Secretary hopes that all existing local round tables will plan a meeting for December 29th or December 30th or both days which will thus be simultaneous with the national meeting in Chicago and will be in some degree a substitute for the national meeting which members will not be able to attend because of restrictions on travel made by the Office of Defense Transportation.

BOOK REVIEWS

A New Philosophy and the Philosophical Sciences. By APOSTOLOS MAKRAKIS. New York: G. P. Putnam's Sons, 1940. Vol. I, pp. xlviii + 843 and Vol. II, pp. xxviii + 716. $10.00.

Apostolos Makrakis, a highly esteemed modern Greek thinker and teacher, was born in 1831. The first part of his philosophical system appeared in 1876, other portions were published in 1883 and 1886. A definitive edition of the part entitled, Philosophy, was printed in 1890, thus completing his system as contained in the present two volumes. One may mention that he was the author of many other works written both in Greek and French. He died in 1905, but before he ended his active and stormy career he made numerous enemies and came into conflict with the Greek Government and with his own Church authorities. On the other hand he also gained a large number of pupils and followers, and he was able to inspire a band of enthusiastic disciples who embraced his teaching and helped to disseminate it in the Greek world. Apparently the translation and publication of the English edition of the philosophy of Makrakis in this country is due to the efforts of some devoted students of his, who are anxious to make it known in the English-speaking world. One must remark that this edition has been made possible on account of the profound interest and financial support of Messrs. P. Vassilakos and K. Andronis, who must be regarded as its principal sponsors. The first volume includes an introduction to philosophy, psychology, logic, theology and the writing bearing the title, Philosophy, while the second consists of the moral doctrines of Makrakis.

Even a cursory glance at the two volumes and their tables of contents will immediately reveal that their author was primarily and fundamentally a Christian philosopher and apologist. It is not surprising, therefore, that this edition should be highly recommended to all readers by the supreme authorities of the Orthodox Greek Church in America. The supporters of Makrakis' thought in this land of ours allege that their leader's compositions constitute the first complete philosophical system ever published. The editors assert unambiguously that the wisdom of Apostolos Makrakis was preterhuman, and that he cleared up points not understood by the ablest intellects of the ages. The translator of the first volume, Mr. Denver Cummings, tells us in his preface that Socrates was the greatest of ancient philosophers, and that

Makrakis is the greatest of modern philosophers. Mr. Albert George Alexander, the translator of the second volume, the Ethics, calls Makrakis the new Socrates who laid the solid and impregnable foundation of a new philosophical system, and avers that the spirit of Apostolos Makrakis blazed the path to a philosophical faith which is destined to prove the supreme shrine of the human intellect. The author himself categorically states that all previous philosophical systems have collapsed at their birth, whereas his own is too well grounded ever to fall.

Makrakis defines philosophy as the love and science of the God-equal Word, or Logos, leading to deification, *θέωσις*. He argues that to regard philosophy with the ancients as a science of beings, *ἐπιστήμη τῶν ὄντων*, is tantamount to ignoring the one and only true object of philosophy, namely, the Logos, Jesus Christ, the Lord of all. He is convinced that his philosophical system excels in every respect all previous philosophical systems, especially since it abolishes scepticism altogether. He expressed the wish that his own Greek nation might be the first to enjoy the advantages of this best and most excellent teaching. Makrakis felt that he was preparing the way for a better era which was to supersede the mediaeval Papo-Turkish world of both East and West, the offspring of which is the undevout pseudo-civilization of the irreligious West. That his School of the Logos was foredoomed to tear down the ungodly school of Satan, was his firm belief.

Among the most characteristic of the illustrious Greek's tenets is that of the tricompositeness of man. He taught that man is the union of the soul with the body and spirit, basing himself on passages from the Fathers of the Church, whom he claims as his authority. It was precisely this tenet which brought down upon him the condemnation of the Church authorities in Athens in 1879 when he was charged with heresy. It should be remembered that Anton Günther (1783–1863) held a similar doctrine even before Makrakis. It is well known that the German thinker argued that man is a *Naturwesen*, consisting of body and soul, to which is united subsequently a spirit directly created by God. The German philosopher got into difficulties with the authorities of the Roman Catholic Church.

Despite the extravagant statements heralding this supposedly new and superlative sytsem of philosophy and the high hopes and immoderate claims of its author, one must declare that it is not as new as its protagonists would have us believe. The author himself assumes a lofty attitude and seems to address all humanity from an exalted position and inaccessible height. His tone is prophetic and apocalyptic, and he

obviously regards his teaching as so vastly superior to all previous philosophies that its acceptance appears obligatory, like an oracle whose hidden meaning remains to be carefully deciphered. Strictly speaking, we have here not a system of philosophy, according to the conventional signification of the term, but rather a theology, a bulky handbook of religion, one might even say, a theosophy, founded on mystical insight and contemplation, rather than on demonstration or an accumulation of evidence, particularly since a notable portion of the two volumes is devoted to an interpretation of revealed texts, accepted on authority and not established by the use of reason alone.

If there is any superiority to be accorded to Makrakis' teaching it is rather that of the words of Christ Himself. Granting the sublimity of Christ's teaching, one is not, however, always constrained to admit Makrakis' explanation of it. It is true, of course, that some interpretations of the author are lucid, clear, and succinct, but frequently enough they are verbose, repetitious, and exceedingly elementary, accessible even to children. It is quite generally acknowledged that the value and utility of Christ's doctrines for poor and oppressed humanity is one of the most striking lessons of history, and consequently one can readily appreciate the elevated motives and the apostolic zeal of Makrakis and his disciples in seeking to make them known to the whole world. It should be observed in this connection that the Christian Churches have been carrying on that noble work for almost two thousand years, at the command of Christ Himself. No doubt many readers of the books of Apostolos Makrakis will derive much spiritual consolation from them and be prompted generously to devote their lives to the service of the Logos Whose follower the distinguished Greek thinker ever wished to be. One should note that the translators have seemingly succeeded in conveying the meaning of the author's Greek text into understandable English, which after all was their primary task. Finally one may add that the publishers deserve to be complimented on the truly excellent printing and splendid appearance of the two volumes which may be regarded as models of recent bookmaking.

J. J. Rolbiecki.

Thomistic Principles in a Catholic School. By Theodore Brauer and Others. St. Louis: B. Herder Book Co., 1943. x + 321 pp.

The late Dr. Brauer felt that there ought to be, at least in Catholic schools, a common basis and a mutual understanding for the various

disciplines; such a common basis is generally found lacking. It can hardly be supplied for non-Catholic institutions because there is no set of principles on which everyone might agree. He intended, in this book, to show that an integration becomes possible by emphasizing the fundamentals of Thomism in each particular discipline. Thus, a more uniform instruction may be obtained and the student be made aware of the essential unity of and the manifold interrelations between the single branches of knowledge. Dr. Brauer taught economics and sociology at St. Thomas College, St. Paul, Minn., and he choose his collaborators among members of the same faculty. Unfortunately, Dr. Brauer died shortly before publication.

There are nine essays. The first, by Very Rev. Dr. J. H. Moynihan, deals with 'St. Thomas in the Curriculum' in a general way. R. A. Kocourek discusses 'St. Thomas on Study' by way of a detailed analysis of Aquinas' letter to Fr. John on the principles of study. 'Religion and the Research of First Principles,' by W. LeBeau, seeks a formula by which to establish the meaning of Christian philosophy. Since philosophy can prove the existence of God, there is no reason why the philosopher, while remaining such one, might not draw on revealed truth for completion and verification of his reasonings. This essay summarizes briefly and ably the fundamentals of Thomistic doctrine. Th. Brauer contributed a chapter 'Thomism and Modern Philosophy' which is largely indebted to Maritain. The author, however, does not so much confront modern thought with Thomistic doctrine as he gives a good exposition of the latter, especially concerning metaphysics and epistemology, and answers certain objections. This essay might have become more useful if it had attempted a characterization of the main trends in modern philosophy and pointed out their partial agreement and their mistakes which one discovers by a careful analysis and comparison with Thomism. The next essay, also by Dr. Brauer, is more to the point since it takes up questions which play a great rôle in or back of many discussions of to-day. 'The Importance of Teleology' manages to condense within the space of some thirty pages a great deal of information and of valuable suggestions. This article should prove a help to the teacher and student of biology, anthropology as well as of economics and social science. The latter will also profit by studying the two following contributions, the first of which, by Brauer, brings a succinct and clear summary of the 'Economic Thought in St. Thomas and discusses such questions as Private Property, Just Price, Just Wage, while the other, written by Fr. Mueller, reports on 'Person and Society

According to St. Thomas'; this author lays great stress on the distinction between individuality and personality, much in the sense advocated by Maritain; he is, however, aware of the difficulties which arise from the fact that man is person and individual and that the two aspects cannot in truth be separated one from another. Concerning man's social nature, he holds, in accordance with Gundlach and Maritain, that it is incorrect to place the basis of social disposition in the individual nature of man; the bond of union has to be conceived as 'something teleological and axiological and can, therefore, not be looked for in the order of being and verity . . . it is rather to be found in the order of ends and values.' One might object that this latter order itself has to be founded in the order of being and verity (*Ens et bonum convertuntur*), and that the position taken by the author lacks the necessary ontological foundation. He also seems to overlook that the statement he criticizes eventually may have exactly the meaning he wants to suggest, because the authors to whom he refers do not distinguish in the same manner between man's personality and individuality. This essay gives a good and comprehensive idea of Aquinas' sociological doctrine. Ch. McCoy contributes an article on 'St. Thomas and Political Science' which is a welcome completion of the foregoing essays. One misses, however, here as in the other articles, a more extensive discussion of the notion of justice and of the moral virtues in general as they become effective in social life. The last article is by J. Giesen and deals with 'St. Thomas and the Development of Modern Science.' One can hardly do justice to this highly complex matter on twenty-four pages. But even so, it ought to be possible to give a better account of the historical development as well as of the actual problems. The article considers chiefly the importance of Aquinas for modern science and its development. But teachers and students need much more to be shown how the principles of Thomism can be used in modern science, whether and how, for instance, the notions of potency and act retain their significance to-day. Many students of science feel that, whatever may have been the importance of Aristotelian-Thomistic thought for the preparation of modern science, there is to-day an unbridgeable gap between these two ways of conceiving of nature. To show the falsity of this idea and to point out the way a perfect synthesis may be effected is something the student of science needs very much.

As a whole, this book will prove helpful. It is, perhaps, planned more as a preliminary attempt, to pave the way for further and more detailed endeavors. If this be the intention of the writers, they indeed have

rendered a definite service to Catholic schools. The value of the book is somewhat diminished by the lack of an adequate bibliography and by the preference shown by some contributors for relying on and quoting from foreign literature. This is, of course, no defect as such. But the references in such a book of practical intention should be chosen so that they may be a real help to the reader. The integration of Catholic education in the spirit of Aquinas can be effected only if the student of a particular discipline is able to gather further information, to widen his understanding, and this needs more than a knowledge of some passages in St. Thomas. Welty's or Frodl's studies on sociological problems are indeed valuable and important, but they are hardly within reach of the average teacher or student. Since this book deserves to be reprinted in an enlarged and improved shape, the suggestion submitted by this reviewer might be considered.

RUDOLF ALLERS.

Catholic University.

The Catholic Pattern. By THOMAS F. WOODLOCK. New York: Simon and Schuster, Inc., 1942. Pp. xxii + 201.

The Catholic Pattern by Thomas F. Woodlock bears witness that if one profession has escaped the narrowing influence of specialization, it is that of journalism. The book also stands as evidence for the truth of its author's verdict that man is by nature a metaphysical animal, and that the Thomistic system is the one body of philosophy equipped to survive the wear and tear of this changing world.

That a man of Mr. Woodlock's profession, necessarily forced to deal with the most rapidly transient of all transient things—*news*—has, nevertheless gotten so thoroughly beneath the surface of things, and found his chief occupation not in recording passing events, but in plumbing their meaning, is persuasive of the naturalness of the metaphysical spirit. That the author, fortified by scholastic training, not only survived during some fifty years the storm and stress of contending modern philosophies, but in that time happily developed his own understanding and appreciation of the Thomistic system, says much for Thomism.

Thomas F. Woodlock, at present contributing editor of *The Wall Street Journal*, has written for many magazines, been a member of the New York Stock Exchange, director on the board of two railways, and

served as Coolidge appointee to the Interstate Commerce Commission, 1925-1930. As he indicates in the Preface, his book is the attempt of a man "who has spent most of his life in writing to describe what, at the end of it, he sees as the meaning of things in general."

The first part of the book contains a summary of Catholic doctrine, presented accurately, briefly, and in frank, telling phrase. There is neither belligerency nor apology in the narration, but simple, direct "description," as he has termed it, of infallible truth. For the thoughtful and intelligent Non-Catholic interested in the Church this part is to be specially recommended. It may be even more earnestly recommended to the Catholic for reviewing the great truths of his religion. In the second part, Mr. Woodlock shows how this "Catholic pattern," if laid upon the pattern of today's confusion, both explains the reasons for that confusion and indicates the way to a restoration of order.

The two great questions of all time, the answers to which most closely unite or fundamentally divide men, are: "What think ye of Christ? Whose Son is He?" and "What is man?"

It is because of wrong answers to one or both of these questions that there are in the world today three "great apostasies"; the apostasy from religion, from metaphysics, and from morality. The apostasy from religion has been brought about by "atomization" and "atrophy." By atomization, he means the substitution of "faith" for dogma, the subjective for the objective, and the destructive fission of Christianity into many sects. By atrophy, he refers to the state of religion produced by ignorance, neutrality, indifference, and secularization.

Metaphysical knowledge has been thrust aside or denied by "Instrumentalism" or "Scientism." The first denies final ends, the existence of God, any enduring moral law, and makes man continuous with nature. The colossal error of Scientism is its assumption that scientific knowledge is the only kind necessary for discovery of all truth. This attitude has resulted in a loss of the *habitus* of wisdom for a large proportion of mankind—a loss which is to be accounted as one of the main causes of the world's present condition.

Directly consequent upon denial of any absolute truth is the naturalistic concept of morality and the denial of any absolutism to law or authority. Moral customs may still survive; but their roots have been cut. Formerly, it is true, men *broke* the law; but the modern tendency is to *deny* the law. In addition to evidences of this attitude in private life, there are many to be cited in our national life. Here the author

refers notably to the abandonment of the gold standard, to the "packing" of the Supreme Court, and to the pragmatism in law openly espoused by proponents of "realistic jurisprudence." One of the author's most graphic representations of the effects that follow upon denial of fixed principles is to be found in Chapter XVII. There he pictures St. Thomas, editorial blue pencil in hand, reading the Preamble to the Declaration of Independence, and discusses the possible editing the Saint might have done in contrast with that which an Instrumentalist, if logical, would find necessary.

Although Chapter XVI is entitled "A *Digression* on the Arts," it is one of the high points of the book. Many will agree with Mr. Woodlock's statement that the same "centrifugalism"—that is, flight from all standards—found in philosophy and morality, is paralleled by a "flight from beauty" in the arts. In literature, he finds "coprophagy": a craving for the ugly. In music, a return to the primitive rhythms of the jungle has been followed by deliberate degradation plus cacophany. Painting and sculpture he treats briefly, but with the significant remark that neither has any strong hold on the ordinary person today, and "a lack of interest on the part of the *public* in any art is a symptom of unhealth either in the art or in the public. . . . The state of the arts *among a people* is symptomatic of the state of the people themselves in respect to more important things than the arts."

The author in one place quotes a sentence of Molière which, he says, ought to be the motto of every newspaper man: "Je repends mon bien où je le trouve"; and the places in which Mr. Woodlock has found the good are indeed catholic in their diversity. References cited throughout will surprise and delight the reader; but the general tone of the work can be best caught from the author's own final estimate of the "Catholic Pattern":

> As a pattern, it seems to me to be in itself, and independently of its Source, the only completely *reasonable* pattern offered to mankind today. The same tremendous question is still posed in the same direct words as it was nineteen centuries ago: "What think ye of Christ? Whose Son is He?" And only in the Pattern's answer to that will the world find the secret of its own order and its own peace.

SISTER ROSE EMMANUELLA.

Social Theories of the Middle Ages. By BEDE JARRETT, O. P. Westminster, Maryland: The Newman Book Shop, 1942. Pp. 280.

This is a reprint of the late Bede Jarrett's valuable book, published originally by Little, Brown, and Company, in 1926. In a series of essays on Law, Education, Women, Slavery, Property, Money-making, War, Christendom, and Art, it presents a remarkably well-rounded picture of the social life and thought of the period 1200-1500.

The author states in his Introduction that he has limited himself to the office of historian, not critic, of the theories he presents, and that, moreover, he has selected to present only such theories as were most influential within his period, and to cite, from the masses of material studied, only those works "typical of their age or of their school."

Within these limitations, which may readily be—indeed, have been—regretted, the work is a masterpiece. It is at once scholarly and entertaining, readable and carefully documented. The theories are placed, wherever it is possible, in their proper relation to facts; and there is considerable quotation of valuable primary source material.

It is not surprising that much of any historian's emphasis, in a treatment of social theories of the Middle Ages, should fall upon Saint Thomas Aquinas. It is, therefore, not surprising that a Dominican historian who has previously announced his principles of selection should draw so largely upon the works of Saint Thomas and upon those of other prominent Dominican writers. This is not to say, however, that other important schools and individuals have been neglected. In fact, the range of material from which the author has drawn is remarkably wide. He has made it clear that "for every work cited a dozen have had to be omitted," and he makes no pretense of having exhausted, within the compass of three hundred pages, the vast field of his present assignment.

The sources of the medieval heritages of law are indicated briefly, and the synthesizing completeness and pervading influence of Saint Thomas' *De Legibus* on subsequent canonists of the fourteenth and fifteenth centuries are pointed out. The traditional principle that law derives from the people is analyzed and traced in its existence at least, and to some extent in its operation, in the Empire, in France, in the Italian city-republics, and in England.

Vincent of Beauvais' *De Eruditione Principum*, Humbert de Romans' *De Eruditione Praedicatorum*, and works of Holcot, Aquinas, and many others, furnish the materials for the interesting chapter on Education,

in which, too, the rise of the universities is traced. A considerable section of the chapter is devoted to Mafeo Vegio of Lodi's *De Liberorum Eruditione* as a trasitional work between the Middle Ages and the Renaissance, because, "more than any other it gives a true picture of the older theories at their best and the new at their most Christian moment."

There was apparently little conflict in theory among medieval writers in general, regarding woman's place in the world, but some difficulties not unaccompanied with bloodshed seem to have arisen in attempting to put theory into practice. The author carefully clarifies, however, the essentially teleological quality of Saint Thomas' analysis of woman's place, showing that it is woman's place as woman in family life only, that is under consideration. The sane views of Humbert de Romans on woman's prerogatives are worthy of attention. Literature contributes considerably to the material of this chapter, and the social facts are admittedly less available than the theories.

The chapters on Slavery, Property, Money-making, and War cover topics that have been the subject of more detailed and extensive study since the publication of this book. They remain valuable, however, for their historical setting and for the brevity of their treatment.

The force of Christendom as a unifying fact behind medieval life and as a unifying idea behind medieval social theories is clearly presented in the chapter on Christendom, and the steps that led to the break-down of this solidifying power are adequately traced. "With the break-up of united Christendom faded the vision of a common Christian social polity."

The work closes with the chapter on Art in which the author has professedly been guided by *L'Art et Scolastique* of Jacques Maritain.

The growing interest in Thomistic philosophy, and particularly in Thomistic social thought has more than justified the emphasis placed upon the theories of Saint Thomas in this historical study. It has, moreover, rendered doubly happy the reappearance of this scholarly product.

SISTER FRANCIS AUGUSTINE RICHEY.

Alfarabius de Platonis Philosophia. Edited by FRANCIS ROSENTHAL and RICHARD WALZER. London: The Warburg Institute, 1943. Pp. xxii + 30 + 23. Price: 18/–.

The present work constitutes the second volume of the Collection, *Plato Arabus,* a part of the *Corpus Platonicum Medii Aevi,* under the general editorship of Raymund Klibansky of Oxford University. The publishers announce that the first volume, *Galeni Compendium Timaei Platonis,* is being printed in Beirut, and that it has not been possible to publish it before the present volume. This second volume comprises a Latin preface, a Latin translation of a work of Alfarabi on Plato's philosophy, and twenty-three pages of the Arabic text. In their preface the editors point out that in the first printed edition of Alfarabi's writing, *De beatitudine assequenda,* which appeared in Hyderabad in 1926 there is mention of Alfarabi's intention to give an account of the philosophy of Plato and Aristotle. Fortunately the Arabic text of just that work of Alfarabi on the thought of the two greatest of the Greeks was recently discovered by H. Ritter in Istanbul. Hitherto only a sort of condensation in Hebrew, prepared by Falaguera in the thirteenth century, of that composition of Alfarabi was available to scholars.

The editors, basing themselves on indications of Ibn al-Qifti and Ibn an-Nadin, regard it as probable that the original Greek source of Alfarabi's treatise was a composition on Plato's writings of Theon of Smyrna, a Platonist of the second century of the Christian era. At any rate the editors have established that some unknown and obscure person translated the Greek source of Alfarabi into Syrian, from which it was again turned into Arabic. However, the text utilized by Alfarabi was only a more or less truncated or abbreviated copy of the original Greek.

This newly recovered treatise by Alfarabi does not reveal anything new or unknown about Plato, for it is only a brief statement of the contents of Plato's dialogues. Still it does throw some light on the history of Platonism among the Arabs. One may observe here that the Istanbul *Codex Ayae Sofyae 4833* also includes Alfarabi's treatise on Aristotle's philosophy, which the Warburg Institute promises to publish at some future date. The Istanbul Arabic manscript is not a very old one. It was probably copied about six hundred years after Alfarabi's time. Messrs. Rosenthal and Walzer are to be complimented on the scholarly manner in which they have edited the Arabic text and ren-

dered it into idiomatic Latin, furnishing their translation with numerous valuable references to ancient Greek sources. Historians of ancient and mediaeval philosophy will no doubt acknowledge their indebtedness to both editors and to the publishers.

J. J. ROLBIECKI.

A Short Life of Kierkegaard. By WALTER LOWRIE. Princeton, N. J.: Princeton University Press, 1942. xii + 271 pp.

Fear and Trembling. By S. KIERKEGAARD. Tran. with Introduction and Notes by W. LOWRIE. Princeton, N. J.: Princeton University Press, 1941. xxx + 209 pp.

Repetition. By S. KIERKEGAARD. Tran. with Introduction and Notes by W. LOWRIE, with a bibliographical essay: How Kierkegaard got into English. Princeton, N. J.: Princeton University Press, 1941. xlii + 212 pp.

The *Short Life* will be welcome to the readers of Kierkegaard, this author being one of those whose work cannot be fully evaluated if one is not aware of certain particularities of his life. The older and much more voluminous biography Lowrie published some years ago was not easy reading, whereas the present volume is well written, lucid, and informative.

The two volumes of Kierkegaard's works demand that one be already somewhat acquainted with the fundamentals of his views. The first takes as its theme the faith of Abraham when he was told to sacrifice his son. The main problem is whether there is such a thing as an absolute religious duty which, eventually, may suspend the validity of ethical law. *Repetition* was published in the same year (1843). Kierkegaard gave it the subtitle: An Essay in Experimental Psychology. He compares Repetition to recollection; but the latter 'recollects backwards' and the former 'is recollected forwards.' The category of repetition, as conceived by Kierkegaard, must be understood partly in its contraposition to Hegel's notion of 'mediation,' partly as forced upon the writer by his own personal fate and the attempt to 'repeat' the past. Interesting, or even fascinating though these two works are, if viewed in the total context of Kierkegaard's ideas, they cannot be recommended to anyone wanting to become acquainted with this author's world.

RUDOLF ALLERS

Catholic University of America.

How to Think, or How to Analyze, Associate, Memorize, Reason. By ARTHUR D. FEARON, Ph. D. San Francisco, California: College Publishing Co., 1943. Pp. 194.

This book "is intended for all intelligent persons over 14—boys and girls, men and women." It is directed at high school students, college freshmen, those who may miss or have missed college, and those in college who have not studied logic. It is an epitome of certain parts of logic, both formal and material, and of certain parts of psychology. To this has been added a great deal of other valuable and practical matter, all presented clearly and attractively and compressed into small compass.

In the first of the five sections that make up the book, analysis is discussed. This includes the division of a whole into its parts, analysis of sentences, paragraphs and proofs, and the making of abstracts. Section 2 treats of association under the familiar headings of similarity and dissimilarity. Section 3 gives rules and exercises for training the memory. Section 4 — "How to Reason" — is in two parts. The first part is logical and presents a discussion of propositions and immediate inference and of the syllogism. The second part offers "skills for good reasoning." These include the salutary practice of restating sentences in the form of strict logical propositions, the expansion of enthymemes into full syllogisms, and tests for the validity of syllogisms. Also discussed are the nature of truth, evidence, the sources of knowledge, and the problems of definition and of fallacy. A brief concluding section entitled "How to Succeed" is very good and offers some excellent material on the subject of a student's ideals.

The reviewer recommends this book highly. It cannot fail to give a great deal of help to anyone who studies it carefully. It should prove of service to teachers as well as to students and others. It is to be regretted that more emphasis is not placed in modern education both upon the general content of Dr. Fearon's book and also upon the ideals that he presents so succinctly in his concluding chapter.

JOHN K. RYAN.

The Catholic University of America.

Bracton De Legibus et Consuetudinibus Angliae. Edited by GEORGE E. WOODBINE. Volume IV. New Haven: Yale University Press, 1942. Pp. xi + 378. $7.50.

Constitutionalism, Ancient and Modern. By CHARLES HOWARD MCILWAIN. Ithaca, New York: Cornell University Press, 1940. Pp. ix + 162.

The completed text of Bracton's great treatise is at last made available for scholars with the publication of the final folios, 317b through 444. The treatises included are, *De Ingressu, Breve De Recto, De Essoniis, De Defaltis, De Warantia,* and *De Exceptionibus.* As Professor Woodbine says in his preface to the volume, they become less philosophical and more lawyer-like toward the end, and

> "we are brought face to face with the hard facts of everyday litigation, and with the practical procedure of an eminently virile and workable body of law. The vivid clearness with which Bracton describes the procedural details of the living law which he administered makes the reader forget, for the time being, that it is not still alive" (p. xi).

Of the editor's work, little can be said save praise, for, in all the world there can be few people qualified in any way to pass upon the innumerable details which have gone to make up an achievement not only unique in American scholarship but also in all the centuries of the Common Law development. Beginning with his doctoral thesis at Yale in 1910, entitled *Four Thirteenth Century Law Tracts,* Professor Woodbine's biography can almost be written in the terms of his imprints: the first volume of Bracton in 1915, discussing the variations in the known manuscripts; the second volume of Bracton in 1922, giving one-third of the text; the edition of Glanvil's *De Legibus et Consuetudinibus Regni Angliae* in 1932; the third volume of Bracton in 1940 (reviewed in 15 *New Scholasticism* 59, Jan. 1941); and, in 1942, the volume under review. The next volume promised is to contain addenda and corrigenda along with notes and commentary on the Bracton text. Life-long dedication like this, so akin to their particular genius, the thirteenth century scholars would understand and welcome as of their own.

Perhaps the most worthwhile tribute of appreciation one can pay is to discover and explain what significance the work can have for us and for our problems. As an example of this, Professor McIlwain's little book is most timely. Without attempting to provide a history of

constitutionalism, the author nevertheless suggests in this series of lectures, some of the more important notions such a history should contain. And of very great value for this purpose are the comparisons he makes between Roman and Medieval constitutional ideas. For, after showing the development from Plato and Cicero to Gaius and Papinian, he points out that

> "among the unsung heroes of English constitutionalism are the great justiciars of Henry II, such as Richard de Lucy and Ranulf Glanvill, who were doing for English law what, centuries before, the long line of obscure but important *praetores peregrini* had done for the Roman" (p. 56).

This is followed in a subsequent chapter by a detailed critique of Bracton's texts resulting in the conclusion that it is in the Bractonian doctrine of *jurisdictio,* "and not in 'government' that we find the most striking proof that in medieval England the Roman maxim of absolutism was never in force theoretically or actually" (p. 88). The whole argument and its documentation deserve careful study, and if, from that, recourse is had to the full text of the cleric-jurist, Henry de Bracton himself, for many of our current problems, modern legal philosophy and political philosophy both will undoubtedly find new and acceptable solutions. "Back to Bracton," it is suggested, offers more light than "Back to Kant."

MIRIAM THERESA ROONEY.

Washington, D. C.

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